FINANCIAL TIMES

US politics
The Dole depletion
Page 15

Russian markets
AIOC's rise and fall
Page 18

Product strategy
Nurturing premium brands
Peter Martin, Page 14

Today's surveys
Pension Fund Investment
Information Technolgy
Separate Sections

World Business Newspaper
THURSDAY MAY 2 1996

Asian nations criticise policy of development bank

China and Malaysia criticised the Asian Development Bank yesterday for putting tough conditions on its loans. Malaysian deputy premier Anwar Ibrahim accused the ADB of "bureaucratic rigidity" towards borrower countries, while Jin Jieyan, deputy governor of the People's Bank of China, said it should "give adequate attention to the importance of economic growth in its pursuit of social development objectives." Page 16: US seeks to bar China, India from fund, Page 6

Offer to Berlusconi: The rightwing alliance headed by former Italian prime minister Silvio Berlusconi is to discuss an offer from the centre-left Olive Tree coalition, which won last month's general election, to take important posts in the new Italian parliament. Page 16; Observer, Page 15

Poor US sales hit Courtaulds: Courtaulds Textiles shares plunged more than 10 per cent in London after Britain's second biggest clothing and fabric maker warned of a sharp drop in US sales. Page 23 and Lex

Stena Line chief Bo Lerenius said the Swedish ferry operator was committed to remaining an independent English Channel carrier and was not interested in a merger with Britain's P&O. Page 17

PepsiCo stock split: US drinks group PepsiCo announced a two-for-one stock split, mirroring the action of its rival, Coca-Cola. The move will double the number of authorised Pepsi chares to 3.6bn. Page 17

Chechen rebel leader alive: Chechen separatist leader Zelimkhan Yandarbiyev, reported by pro-Moscow authorities as having been killed earlier this week, appeared on rebel controlled television alive and well. He blamed Chechnya's pro-Moscow administration and the Kremlin for spreading rumours of his death. Page 2

Warning to Mediterranean: Countries round the Mediterranean face severe environmental problems unless they change their food production methods, the UN Food and Agriculture Organisation warned. It highlighted water shortages, deforestation and erosion as key risks.

Hong Kong says no to China request:

Anson Chan (left), Hong Kong's chief secretary, said the British colonial administration would not co-operate with a legislature Beijing plans to install in the territory. China criticised the refusal, saying British foreign secretary Malcolm Rifkind had earlier this year promised full co-operation. Visiting Hong Kong, opposition foreign affairs spokesman Robin Cook said a Labour government would give the territory's ethnic minorities full right of abode in Britain if they were stateless after China resumed control. HK talks tough, Page 6; Labour pledge, Page 8; Observer, Page 15

US ships near Liberia: US ships move closer to the Liberian coast after the US embassy came under fire during fresh fighting in the capital, Monrovia, between rival warlords.

RAF to leave Germany: Britain's Royal Air Force is leaving Germany, where it has had bases since the end of the second world war. The last UK base, RAF Brüggen, will close in 2002. Page 8

Fires ravage Mongolia: More than 11,000 Mongolians are trying to fight grass fires that have swept to within 19 miles of the capital, Ulan Bator, killing 16 people. Forests and pasturelands are tinder-dry after a winter with little snow.

Fayed denies politics plan: Mohamed Fayed, Egyptian chairman of London's luxury store Harrods and owner of the Ritz hotel in Paris, denied reports that he planned to form a new political party in Britain.

Chirac attacks supermarkets: French president Jacques Chirac accused the country's supermarkets of drawing customers into "unfriendly" suburban centres and leaving deserted areas in city centres and the countryside. Page 2

Railtrack value: The UK government expects the country's railway lines, stations and signals to be valued at between £1.75bn and £1.95bn ($2.94bn) when Railtrack is privatised. Page 8; Lex, Page 16

Elektrowatt, Swiss engineering and power group, is to place its 40 per cent holding in UK electronics components distributor Eurodis Electron after failing to find a buyer for the stake. Page 17

STOCK MARKET INDICES

New York lunchtime		
Dow Jones Ind Av	5,588.95	(+19.87)
NASDAQ Composite	1,198.80	(+8.28)
Europe and Far East		
CAC40	closed	
DAX	closed	
FT-SE 100	3,806.6	(-11.9)
Nikkei	21,815.81	(-226.29)

US LUNCHTIME RATES

Federal Funds	$5\frac{7}{8}$%
3-mth Treas Bills: Yld	5.093%
Long Bond	$86\frac{9}{32}$
Yield	6.874%

OTHER RATES

UK: 3-mo Interbank	$6\frac{1}{16}$%	(same)
UK: 10 yr Gilt	$95\frac{7}{32}$	($96\frac{3}{16}$)
France: 10 yr OAT	closed	
Germany: 10 yr Bund	closed	
Japan: 10 yr JGB	97.227	(97.309)

NORTH SEA OIL (Argus)

Brent Dated	$19.00	(19.51)

GOLD

New York: Comex		
(Jun)	$394.9	(393.5)
London:		
close	$393.55	(391.6)

DOLLAR

New York: lunchtime		
£	1.4945	
DM	1.53445	
FFr	5.185	
SFr	1.24955	
Y	105.095	
London:		
£	1.4985	(1.5006)
DM	1.5336	(same)
FFr	5.1773	(same)
SFr	1.2485	(1.2447)
Y	105.115	(104.755)

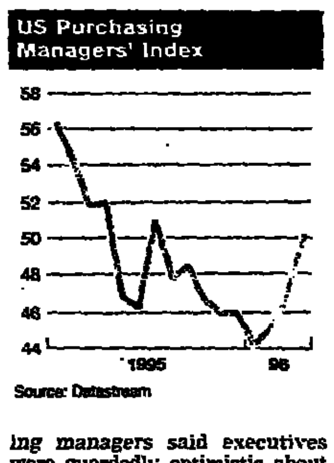
STERLING

DM	2.295	(2.3012)
Tokyo $ close:	Y 105.3	

Albania	LEK 220	Germany	DM4.00	Lithuania	Lts 15.00	Qatar	QR13.00
Austria	Sch37	Greece	Dr400	Lux	LFr75	S.Arabia	SR12
Bahrain	Din1.250	Hong Kong	HK$20	Malta	Lm0.65	Singapore	S$4.30
Belgium	BFr75	Hungary	Ft230	Morocco	MDh15	Slovak Rp	Sk65
Bulgaria	Lw130.00	Iceland	IKr230	Neth	Fl 4.75	S. Africa	R12.00
Cyprus	C£1.20	India	Rs75	Nigeria	Naira90	Spain	Pta250
Czech Rp	Kc60	Israel	Shk7.90	Norway	NKr20.00	Sweden	SKr20
Denmark	DKr18	Italy	L3200	Oman	OR1.50	Switz	SFr3.70
Egypt	E£5.00	Japan	Y500	Pakistan	Rs40	Syria	S£85.00
Estonia	EKr 22	Jordan	JD1.50	Poland	Zl 5.50	Tunisia	Din1.750
Finland	FM15.50	Kuwait	Fils650	Portugal (m'land)	Es240	Turkey	L80,000
France	FFr11.60	Lebanon	LL3,000			UAE	Dh12.00

Purchasing managers' index goes above 50% ■ Figures indicate continued growth

US economy gathers pace



Source: Datastream

By Michael Prowse in Washington

The US economy continues to gain momentum after a sluggish period earlier this year, figures on the manufacturing and construction industries indicated yesterday.

The purchasing managers' index – a guide to conditions in manufacturing industry – rose to 50.1 per cent last month from 45.9 per cent in March.

This was the first time the index has risen above the 50 per cent level – the threshold for expansion in the sector – since July. Most Wall Street economists expected a smaller increase to about 48 per cent.

Separately, the Commerce Department reported a 3 per cent increase in construction spending in March – the largest monthly gain in four years. The Conference Board, a business group based in New York, said the index of leading indicators rose 0.2 per cent in March, extending the large 1.3 per cent increase reported for February.

The figures follow other signs of a cyclical rebound, including faster than expected growth of retail spending, big increases in employment and a revival in consumer confidence. Further information on the state of the economy will come with the scheduled release today of gross domestic product data for the first quarter and April non-farm payroll figures due tomorrow.

Wall Street .... Page 36

Mr Richard Berner, chief economist at Mellon Bank in Pittsburgh, said: "I'm looking for economic growth at an annual rate of 3.5 per cent in the second quarter." The Federal Reserve has had to be "wary and watchful" of inflationary pressures although an early increase in short-term interest rates remained unlikely, he said.

Other economists were less optimistic about growth prospects. "The industrial sector is probably no longer declining, but neither does it show any sign of acceleration," said analysts at Merrill Lynch in New York. The group expects only a mild acceleration in growth – to about 2.3 per cent at an annual rate in the second quarter from 1.5 per cent in the first quarter.

The price index compiled by purchasing executives pointed to a modest decline in the prices of manufactured goods despite recent jumps in food and energy costs. The downward pressure on prices was a little less strong than in February or March.

The reports also contained encouraging news on orders. The association's index of new orders rose to 53.8 per cent from 49.7 per cent, signalling the first expansion in corporate order books in six months. A production index also rose sharply, although this may have been distorted by the end of a strike at General Motors, the automotive group.

A spokesman for the purchasing managers said executives were guardedly optimistic about future prospects, but still had reservations about the strength of consumer demand.

Trade unionists march through Belgrade in a May Day protest holding a banner proclaiming 'bread and democracy'. Hundreds of demonstrators signalled their opposition to the policies of Serbian president Slobodan Milosevic. At one of more than 100 May Day rallies across Germany a leading trade unionist vowed tough opposition to the government's plans to cut spending and reform the welfare state. German threat, Page 2; China police halt May Day protest, Page 6 Picture: Reuter

Cummins joins Fiat in $300m engine venture

By Peter Marsh in London

Cummins Engine of the US and the Iveco and New Holland subsidiaries of Fiat of Italy have launched a $300m project to develop low pollution, fuel-efficient diesel engines for trucks, farm equipment and buses.

The three-way joint venture, to be called the European Engine Alliance, will invest $200m on a new factory in Turin and $100m on a UK development centre.

The project, reflects the trend already well advanced in the aerospace industry of companies sharing with rivals the costs and risks of long-term, large-scale development projects.

Engine development costs for many types of projects have increased because of tougher pollution and noise regulations and the use of more sophisticated manufacturing technologies. It is thought that Fiat examined a range of other options before choosing the Cummins collaboration as the most cost effective.

The partners reckon that by around 2007, they will be producing some 400,000 of the new engines a year. Slightly more than half will be used by Cummins in its own businesses, and the rest shared between New Holland, one of the world's top three tractor makers, and Iveco, Europe's second biggest truck company and a builder of buses.

Mr James Henderson, chairman of Cummins, said the partnership would "greatly accelerate our sales" in Europe, while Mr Riccardo Ruggeri, chief executive of New Holland, said the partnership would lead to the most advanced diesel engines on the market.

Mr Carl Ahlers, an executive who has worked for all three partners, will head the alliance which will be based near London at a location yet to be decided. The move underlines the UK's good record in setting up new engine development operations, bringing Britain roughly level with Germany among European countries housing important new engine development for the automotive industry.

The new Turin factory will turn out early next century some 240,000 of the new, mainly four- or six-litre, engines a year. Half of them will go to New Holland for use in tractors, and other farm machines such as grape harvesters and baling vehicles.

Iveco and Cummins will share the remaining 120,000 engines a year, for putting into trucks and buses made by Iveco and for a range of applications on behalf of

Continued on Page 16

News Corp group in TV card lawsuit

By William Lewis in London

Questionable tax planning and embarrassing management failures have been revealed by a Financial Times investigation into News Corporation, the media and entertainment group headed by Mr Rupert Murdoch.

Details have emerged of the tax avoidance structure operated at a key News Corp group subsidiary and of disguised consultancy payments to executives' foreign bank accounts.

The investigation has also disclosed how internal management controls at News Corp group failed to halt an alleged conspiracy involving employees.

In February several companies in the News group, including News International, its main UK subsidiary, started a High Court action to recover more than £19m ($28.7m). The group claims it has been the victim of a conspiracy systematically to overcharge it for a vital component of its worldwide TV interests.

The companies' claim relates to the supply of "smart cards" to subscribers to BSkyB, the satellite broadcaster in which News group holds a 40 per cent stake, and other TV companies.

The cards are crucial to the

Continued on Page 16

TV SMART CARDS:
AN FT INVESTIGATION
Page 10
■ News Corp says card sharps have cost it £19m
■ Dark tax affairs in a corner of Rupert Murdoch's empire

KLM 'considers ending alliance' with Northwest

By Michael Skapinker, Aerospace Correspondent

Northwest Airlines of the US yesterday said KLM of the Netherlands was considering ending the alliance between the two airlines. But the US carrier said it wanted the partnership to continue.

Aviation industry executives have been expecting the alliance to collapse since late last year when KLM began legal action over a "poison pill" scheme adopted by Northwest to protect it against takeover.

An unravelling of the relationship would leave KLM free to seek other partners. It is believed to have had talks with British Airways about an alliance which would create the strongest aviation force in Europe, with bases at London's Heathrow airport and Amsterdam's Schiphol.

Industry officials have speculated that BA and KLM might then form an alliance with American Airlines, which does not have a European partner.

Northwest said yesterday that during a conversation with one of its executives, a KLM official said the Dutch airline was considering three options. The first was to continue the existing arrangement under which the two airlines co-ordinate their passenger schedules closely and sell seats on each other's flights – an arrangement known as code sharing.

The second option was to increase co-operation in areas such as cargo and computer reservation systems. The third option, the KLM official said, was to end the relationship. KLM refused to comment on Northwest's account of this conversation or on the future of its relationship with the US airline.

Northwest said it wanted to continue its alliance with KLM, which it regarded as "very valuable", and to extend it into new areas. Northwest said its arrangements with KLM brought it an additional $50m a year in operating profits. It said KLM gained additional operating profits of $120m to $170m a year from the alliance.

Northwest said: "We have not initiated any discussion on a break-up, although the legal action by KLM has clouded the alliance. The alliance is benefiting both carriers. We've only scratched the surface of what we could do together."

KLM's legal action followed Northwest's adoption of a scheme to prevent the Dutch airline from raising its stake in the US carrier from 18.8 per cent of the voting rights to 25 per cent. Northwest said KLM's conduct "presents strong evidence that KLM represents a creeping control threat to Northwest".

KLM countered that there was no prospect of its taking control of Northwest because US rules prevented a foreign carrier from owning more than 25 per cent of a US airline.

In an attempt to repair relations between the two airlines, Mr Pieter Bouw, KLM's president, and two of his fellow senior executives stepped down from the Northwest board in February to make way for independent directors. KLM said at the time the dispute was between shareholders and not between the two airlines themselves.

Lex .... Page 16
World stocks .... Page 36

CONTENTS

LONDON · LEEDS · PARIS · FRANKFURT · STOCKHOLM · MADRID · NEW YORK · LOS ANGELES · TOKYO · HONG KONG

Russian rivals turn out for May Day

By Chrystia Freeland in Moscow and agencies

Across much of the former USSR, May Day – once a ritualised tribute to Soviet rule – was yesterday transformed into an occasion for passionate, but largely peaceful, political demonstrations.

The battle of the titans was in Moscow, where President Boris Yeltsin and Mr Gennady Zyuganov, his Communist rival in the June 16 presidential ballot, held competing rallies.

Although Mr Yeltsin has been steadily rising in the polls, his crowd of several thousands was outnumbered by Zyuganov supporters who turned up at the statue of Karl Marx near the Bolshoi Theatre to hear their man speak.

Mr Yeltsin, who has ignored the traditional May Day rally in previous years, told his rain-drenched backers: "We have come together at this rally to support a radical change for Russia. We must win the election to confirm we are going the right way and we will win."

In St Petersburg, which supported reformers more strongly than any other Russian city in parliamentary elections last year, an even bigger crowd of Communist supporters took to the streets to celebrate the workers' holiday. Russian agencies said that as many as 35,000 marched down Nevsky Prospekt, the city's fabled main street, chanting and carrying red banners.

More than 20,000 people reportedly took to the streets of neighbouring Belarus, many of them protesting at deteriorating economic conditions and some voicing their opposition to the strong-arm rule of President Alexander Lukashenko. Yesterday's demonstration was reportedly more peaceful than a rally on Friday which was violently broken up by police.

● About 10,000 demonstrators in Athens demanded government action to fight unemployment and an end to austerity measures which have seen wages lagging behind the annual 9 per cent inflation rate.

● Two people were killed and six injured when police clashed with workers in Istanbul before the start of a May Day demonstration. The clash began when some workers gathering for a demonstration refused to be searched.

Russian debt deal ready for creditor banks

By George Graham and Graham Bowley in London

A deal to reschedule $33.1bn of Russia's debt repayments to commercial banks could be completed as early as the autumn if individual creditor banks accept the details of a package worked out this week in London.

Deutsche Bank, which chairs the Russian advisory committee of the London Club of commercial bank creditors, said agreement had been reached on the outstanding issues.

Detailed documentation on the terms will be sent out in the next few weeks to the several hundred banks which hold Russian debt, with the endorsement of the 13 main creditors who make up the London Club advisory committee.

The London Club proposals follow a provisional agreement last November and a deal signed earlier this week between Russia and the Paris Club of creditor governments for the rescheduling of more than $40bn of government-to-government debt payments.

Both deals are underpinned by Russia's agreement earlier this year with the International Monetary Fund on a three-year economic reform programme backed by a $10.1bn loan.

Analysts said that although progress on the London Club deal had been widely expected, it was an important part of Russia's effort to join the international financial community as a member in good standing. They also said the debt talks would help set the stage for a new Eurobond issue later this year.

"These are all signposts on the way for Russia becoming internationally credit-worthy again," said Mr Jonathan Hoffman, a director in economics at CS First Boston. "One signpost was the IMF deal; another is the Paris Club; this is the third; the fourth will be the election."

But western investors warned that Russia's success in attracting foreign capital could also hinge on the outcome of June elections, in which President Boris Yeltsin faces a strong challenge from his Communist rival, Mr Gennady Zyuganov.

Bankers close to the negotiations said it was considered extremely unlikely that the London Club deal could now be held up by objections from individual creditor banks. Although obstacles of this sort have arisen in some similar reschedulings, such as Brazil's, it is not believed that large holdings of Russian debt have been amassed by any single creditor. Nevertheless, Russian debt has been so widely traded in the secondary market that it is still not entirely clear who holds which debts.

Reconciling claims could now take several months. Although creditor banks hope to finish the process by the autumn, some bankers believe it could drag on into the winter.

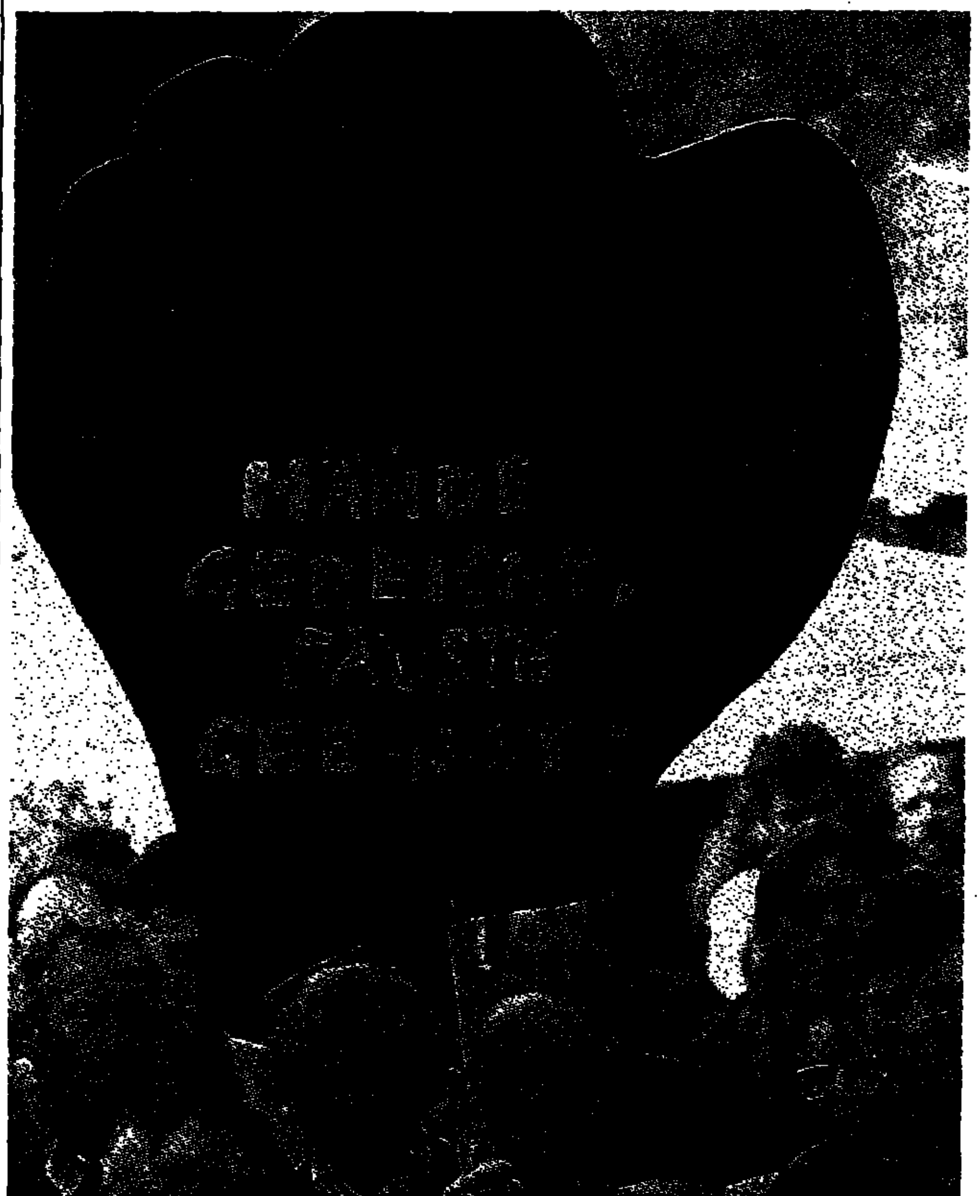
The London Club deal will spread $25.6bn of principal payments and $7.5bn of accrued interest over 25 years, with a six-year grace period. The first payments will fall due in December 2002.

The negotiations have dragged out over four years, including a one-year delay while the London Club tried unsuccessfully to persuade Russia to abandon its sovereign immunity.

Russia was advised in the negotiations by Cleary Gottlieb, the US law firm, and by SBC Warburg, the London investment bank owned by Swiss Bank Corporation.

Head of union federation threatens to oppose government cuts with 'clenched fist'

Fierce attack on German welfare plan



Demonstrators at the troubled Bremer Vulkan shipyard make sure government and employers get their message: "Hands offered. Fists clenched" proclaims the banner Reuter

By Wolfgang Münchau in Frankfurt

Germany's leading trade unionist yesterday vowed to use a "clenched fist" in the fight against spending cuts and changes in the welfare state proposed by the government.

Addressing 20,000 union members in Berlin at one of more than 100 May Day rallies throughout Germany, Mr Dieter Schulte, president of the DGB union federation, threatened massive opposition to government plans to save DM50bn ($33bn) in public spending and to relax laws on sick pay and dismissal.

"Under the pretext of alleged abuses of social benefits the government decided to fight the unemployed, rather than unemployment," Mr Schulte said. "In doing so it has become the tool of employer interests. We have held out our hands for an alliance for jobs, but if others are looking for conflict, they will have to grip our clenched fists."

The unusually militant comments reflect union fears that the government and employers are colluding to roll back the consensus-based welfare state.

Mr Klaus Zwickel, president of the IG Metall metalworkers' union, warned: "We will not hesitate to use every available means of industrial strife." ÖTV, the public sector union, promised a "dramatic wage round" if the government pressed ahead with a public sector wage freeze this year.

Mr Zwickel is particularly opposed to government plans to change Germany's generous system of sick pay, which entitles employees to full wages – including bonuses and regular overtime – from the first day of illness.

The government's proposal to limit sick pay to 80 per cent of basic pay would not affect sick pay arrangements in many industries, including the metal and engineering sectors, where the current arrangements are enshrined in collective agreements.

But the trade unions' increasingly confrontational stance suggests that if employers were to terminate the existing contracts, they might risk massive protests, similar to those in the late 1950s when IG Metall secured the current sick pay arrangement.

Yesterday's demonstrations came as an opinion poll suggested that the budget cuts – which also include a postponement of a child benefit increase and reductions in health care provisions – are unpopular with the public at large. The poll by the Forsa research organisation found 72 per cent against the plans and about 90 per cent support for the view that the government was not doing enough to combat unemployment.

Despite the strong sentiments expressed yesterday, it is not clear whether the unions would be able to call substantial strikes at a time of record unemployment. More than 4m Germans are registered unemployed, about 11 per cent of the workforce.

Mr Peter Hintze, general secretary of Chancellor Helmut Kohl's Christian Democratic Union, warned the unions yesterday not "to revert to the old rituals of class warfare".

German employers have given the government proposals a cautious welcome as a move in the right direction. In a comment bound to infuriate the trade unions further, Mr Klaus Murmann, president of the employers' federation, said Germany would need to create some low-paid jobs to remain competitive.

EUROPEAN NEWS DIGEST

Chirac hits at superstores

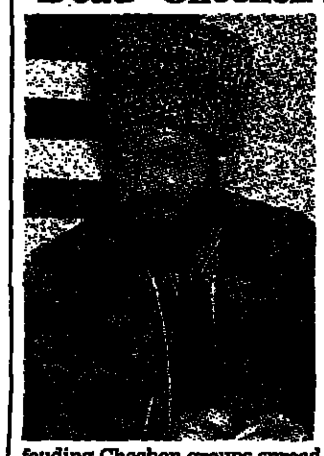
President Chirac yesterday accused France's supermarkets of having an "extraordinarily negative" influence in drawing customers into their big "unfriendly" suburban centres and creating "deserted areas" in city centres and the countryside.

The president's broadside against large-scale retailing, which he chose to describe as a "purely French phenomenon which hardly exists anywhere else", came as he received a traditional May Day delegation of small shopkeepers.

His remarks follow the French cabinet's endorsement on Monday of further draft legislation to protect small shopkeepers. The legislation would tighten planning permission for all new supermarkets of more than 300 square metres. The country's large retailers are already up in arms about a government bill to restrict their ability to offer discounts in the interest of banning "predatory pricing".

Mr Chirac's rhetoric may encourage the centre-right majority in parliament to amend government proposals on planning permission by making them tougher still on the supermarkets, as deputies are in the process of doing on retail pricing proposals. *David Buchan, Paris*

'Dead' Chechen leader reappears



Mr Zelimkhan Yandarbiyev, the Chechen leader reported dead by Russian news agencies, appeared (left) on local television on Tuesday night and vowed to continue the separatist fight against Moscow until the last soldier. Speaking on a television channel used by the Chechen resistance, Mr Yandarbiyev said there were many fighters who could replace him even if he were killed. The Chechen resistance was prepared to "fulfil the cause to the end," he said. Reports that Mr Yandarbiyev had been killed in a skirmish between feuding Chechen groups spread through Grozny on Monday and were gleefully seized upon by Russian military commanders as evidence the rebel leadership was splintering.

Mr Yandarbiyev, a nationalist writer and a forceful advocate of Chechnya's independence bid in 1991, took over as leader after General Dzhokhar Dudayev was killed in a Russian rocket attack on April 21. Mr Yandarbiyev has pledged he will revenge Mr Dudayev's death, prompting Russian authorities to tighten security in Moscow. *John Thornhill, Moscow*

Spanish unions warn new PM

Spanish trade unions used May Day rallies yesterday to brace themselves for their first dealings with a new centre-right administration.

Both main trade union federations, the General Workers' Union (UGT) and Workers' Commissions (CCOO), called on the incoming prime minister, Mr José María Aznar, to start the talks he promised in his election campaign, and warned him they would fight any cuts in social benefits.

Mr Cándido Méndez, the UGT leader, said at the end of a march in Madrid: "The new government should be pretty clear the unions will not put up with any erosion of our social protection." He warned that any cuts in education, health, unemployment benefits or pensions would bring confrontation.

Mr Aznar promised to start talks on a job-creation pact with the unions immediately after the March 3 elections won by his Popular party. But he had to put the meetings off while he negotiated instead with regional parties to enlist support for a minority PP government. *David White, Madrid*

Spain's farmers go anti-French

Spanish farmers plan to stage an anti-French day today in retaliation for the latest resurgence of attacks on trucks carrying Spanish strawberries and other agricultural produce across the French border.

Spain's main farmers' body, COAG, said it would stage countrywide protests evoking the uprising of May 2, 1808, against Napoleonic occupation forces, an event commemorated by a public holiday in the Madrid region.

Along with other farmers' unions, it is calling for a boycott of French farm products and one of its leaders has warned of a violent response if the incidents continued. COAG complains that attacks by what it calls "bands of French vandals" have not diminished in the 10 years since Spain joined the European Union. *David White*

Freedom party urges restrictions

Mr Jörg Haider, leader of Austria's rightwing Freedom party, told a May Day rally there were too many foreigners working in the country and said it had to reduce greatly the number of immigrants to fight unemployment.

"In Austria we have 300,000 unemployed and 300,000 registered foreigners," Mr Haider told supporters in the eastern province of Burgenland. "We finally have to consider how to cut back on foreigners in Austria."

Mr Haider, whose party won nearly a quarter of the votes in the general election in December, was immediately attacked by the ruling Social Democrats who accused him of cheap polemics. At 3.9 per cent, Austria's unemployment rate is among the lowest in Europe.

The remarks came as parties began preparing for important municipal elections on October 13 in Vienna, a long-time Social Democratic stronghold with provincial status. Immigrants, who make up 9 per cent of Austria's 8m population, are concentrated in the city. *Reuter, Austria*

Poland enters smoke-free zone

A law aimed at limiting smoking took effect yesterday in Poland, where the habit is rife. Indoor smoking in workplaces, public buildings, hospitals and similar sites will be allowed only in designated areas. Cigarettes will no longer be sold singly to those under 18 or in vending machines.

Tobacco advertising will be formally banned on broadcast media, in cinemas and in youth and children's publications. Under the law, 20 per cent of the area of tobacco adverts must consist of health warnings. Within a year cigarette packets will have to carry two warnings, covering 30 per cent of their surface. Poland is an expanding market for the large international tobacco companies. In a country of 39m, 8m men and 4m women smoke 100bn cigarettes a year. *Reuter, Warsaw*

Will Berlin knock down its political Wall?

Frederick Stüdemann on a referendum on whether to merge with former eastern state of Brandenburg

Six years since the finances for a new airport in Berlin were approved, the governments of the city and of the state of Brandenburg still cannot agree where to build it.

For locals it has become one of those on-going sagas you don't know whether to laugh or cry over.

What is serious enough, though, is that the dispute is depriving the region of the investment and jobs the new airport would bring.

This Sunday, Berliners and Brandenburgers are being offered the chance to make such costly wrangles a thing of the past when they go to the polls to vote in a referendum on whether to merge.

If they decide to do so, Berliners and Brandenburgers will not only be removing one of the relics of Germany's post-war settlement but also opening the door to further possible mergers among other Länder (states), which would represent an important change to the country's political fabric.

For the Berlin airport débâcle also highlights the problems caused by the German federal system, particularly in the case of the country's city-states, whose infrastructure planning relies on the co-operation of a neighbouring Land.

A reform of the Länder system has been proposed by politicians and constitutional experts ever since the Federal Republic of (West) Germany was founded in 1949. In the 1970s a government commission recommended that for a state to be economically viable it should have at least 5m inhabitants, a condition satisfied by only five of the country's 16 states.

Such proposals have always foundered on regional pride and political interests. Many powerful politicians are reluctant to see any dilution of their state-based powers which at the federal level are reflected in the fact that the states are represented in the upper house.

For the Berlin-Brandenburg merger to go through, a majority of voters in both states must separately approve the proposal. Voters will also be asked to choose between 1999 and 2002 as a preferred date for it to be completed.

A merger is supported by the leaders of both states – Mr Eberhard Diepgen, the Christian Democrat mayor of Berlin and Brandenburg's Social Democrat premier, Mr Manfred Stolpe, who negotiated a merger treaty last year.

The two leaders argue that a merger would deliver significant economic benefits. Unemployment is high in both states. Berlin is heavily indebted and still struggling with its own reunification. Brandenburg, which was wholly in East Germany, is thinly populated and still heavily dependent on federal subsidies.

Mr Diepgen and Mr Stolpe argue that a single state would bring streamlined administration, common planning procedures and the ability to present a united front to the outside world. They say this would improve the investment climate in the region leading to the creation of up to 80,000 new jobs over 10 years.

Berlin officials say ending duplication of government and administration would deliver savings of DM1bn ($600m) a year. The capital of the unified state, which would be called Berlin-Brandenburg with a population of 6m, would be Potsdam, currently the home of the Brandenburg government. Berlin would be a metropolitan district as well as the seat of national government.

The merger is backed by all the main political parties except the Party of Democratic Socialism, east Germany's reformed communists, who say that the treaty does not offer enough guarantees for jobs, specifically in agriculture and the public sector. Business organisations and trade unions are in favour.

A recent meeting of 1,800 business leaders from across the region welcomed a possible end to competing jurisdictions, which have in the past led to protracted negotiations or outright confrontation over such issues as out-of-town development, among which the delay on the airport is the most celebrated.

Mr Michael-Andreas Butz, spokesman for the Berlin Senate, the city government, says that without a merger such tensions will continue to plague relations between the states and lead to an increase in bureaucracy. "To resolve these issue an estimated 200 state treaties would need to be negotiated," he says.

Such arguments have failed to impress the majority in either state. According to an opinion poll published last weekend by the Tagesspiegel newspaper 45 per cent of Berliners support a merger and 33 per cent are opposed, while in Brandenburg 39 per cent were in favour and 47 per cent opposed.

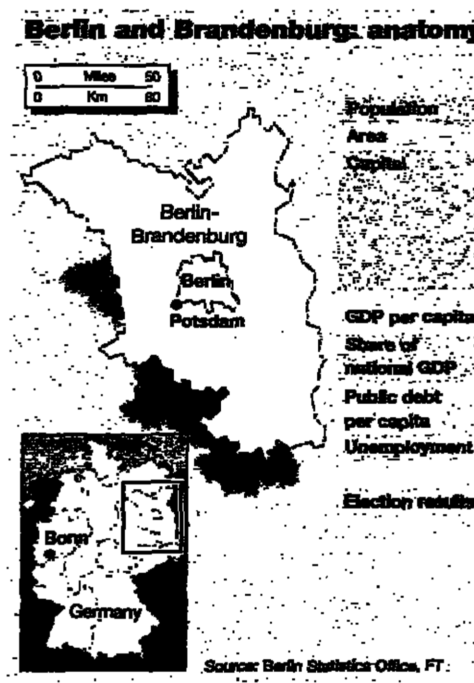
One reason for such opposition is history. Some Brandenburgers feel a united state would bring a return to the days, both under Prussian and communist rule, when it lost out to the more populous and powerful Berlin.

The PDS has taken up these fears in its anti-merger campaign. In Brandenburg the party compares merger to a re-run of German unification, when, they say, the east was all but swallowed up by the west.

Mr Martin Matz, head of the liberal Free Democratic party in Berlin, says failure to endorse the merger would have wider repercussions. "The other Länder are waiting to see the result here. If a merger cannot be done here in two states, where the administrative structures are not yet fully developed, then it can never be done in those areas where structures are well established."

Among other states considered ripe for a merger are the city-states of Bremen and Hamburg, which reformers say should be brought together with neighbouring Schleswig-Holstein and Lower Saxony into a single *Nord Staat* of about 12.7m people.

Berlin and Brandenburg: anatomy of a merger



	Berlin	Brandenburg	Germany
Population	3.47 million	2.54 million	81.54 million
Area	889 sq km	29,480 sq km	357,050 sq km
Capital	Berlin is to become seat of federal government in 1999	Potsdam would remain state capital after merger	Bonn will retain some federal ministries and agencies after 1999
GDP per capita	DM42,607	DM25,126	DM42,368
Share of national GDP	4.3%	1.8%	100%
Public debt per capita	DM13,358	DM6,358	DM24,712
Unemployment	15.1%	16.4%	11.1%

Election results	Senate 1995		State 1994		National 1994	
	CDU	37.4%	SPD	54.1%	CDU/CSU	41.5%
	SPD	23.6%	CDU	18.7%	SPD	36.4%
	Greens	13.2%	Greens	2.9%	Greens	7.3%
	FDP	2.5%	FDP	2.2%	FDP	6.9%
	PDS	14.6%	PDS	18.7%	PDS	4.4%

Source: Berlin Statistics Office, FT

Serious condition of city's finances revealed

The parlous state of Berlin's finances was highlighted yesterday when the Bonn finance ministry disclosed that the city's deficit last year was 36 per cent higher than planned following a slump in revenues, writes Peter Norman in Bonn.

A provisional analysis of the finances of the Länder (federal states) showed that Berlin ran up a deficit of DM10.1bn ($6.6bn) last year, against a planned DM7.4bn, and accounted for more than a fifth of the overall DM45.7bn deficit of Germany's 16 Länder.

The city's expenditure rose by 4.3 per cent to DM42.3bn, but ended some DM600m below budget. Income of DM32.2bn was 3.2 per cent below that of 1994. The sharp deterioration in finances reflected a shortfall of more than DM3.2bn in income compared with the budget, with tax revenues some DM2bn below plan.

Mr Hansgeorg Hauser, a state secretary in the Bonn finance ministry, said the budgetary position in all the states was difficult last year but the situation in Berlin had become acute. He called on Länder to intensify efforts to control spending and urged them to co-ordinate the consolidation of their budgets in a "national stability pact" with Bonn.

The ministry said the five new Länder of eastern Germany had been unable to keep their deficits within budget in spite of spending less than planned. Their overall deficit amounted to DM12.6bn last year against a planned DM10.8bn.

The 10 western Länder had an overall deficit of DM23bn in 1995, only slightly higher than the DM22.9bn envisaged.

THE FINANCIAL TIMES
Published by The Financial Times (Europe) GmbH, Nibelungenplatz 3, 60318 Frankfurt am Main, Germany. Telephone ++49 69 156 850, Fax ++49 69 596 4481. Represented in Frankfurt by J. Walter Brand, Wilhelm J. Brüssel, Colin A. Kennard as Geschäftsführer and in London by David C.M. Bell, Chairman, and Alan C. Miller, Deputy Chairman. Shareholders of the Financial Times (Europe) GmbH are: The Financial Times (Europe) Ltd, London and F.T. (Germany Advertising) Ltd, London. Shareholder of the above mentioned two companies is: The Financial Times Limited, Number One Southwark Bridge, London SE1 9HL.
GERMANY:
Responsible for Advertising: Colin A. Kennard. Printer: Hürriyet International Verlagsgesellschaft mbH, Admiral-Rosendahl-Strasse 3a, 63263 Neu Isenburg ISSN 0174 7363. Responsible Editor: Richard Lambert, c/o The Financial Times Limited, Number One Southwark Bridge, London SE1 9HL.
FRANCE:
Publishing Director: P. Maraviglia, 42 Rue La Boétie, 75008 PARIS. Telephone (01) 5376 8254, Fax (01) 5376 8253. Printer: S.A. Nord Eclair, 15/21 Rue de Caire, F-59100 Roubaix Cedex 1. Editor: Richard Lambert. ISSN 1148-2753. Commission Paritaire No 67808D.
SWEDEN:
Responsible Publisher: Hugh Carnegy 468 618 6088. Printer: AB Kvällstidningen Expressen, PO Box 6007, S-550 06, Jönköping.

Editor: Richard Lambert, c/o The Financial Times Limited, Number One Southwark Bridge, London SE1 9HL.
R

NEWS: EUROPE

Future of Gdansk yard in balance

Christopher Bobinski reports from Warsaw on continuing efforts to sell a symbol of Poland's past

The future of Poland's ailing Gdansk shipyard is in the balance as the Privatisation Ministry sifts through low-price bids. Potential buyers of the yard are Norwegian and German shipowners and a group of US investors, while a South Korean shipyard group hovers in the background.

A team from LG Group, the South Korean conglomerate, visited Gdansk this week, but the company denied reports it had made an offer.

The Privatisation Ministry has floated the idea of including Gdansk in an industry-wide holding company and recently proposed to O J Libaek and Partners, a Norwegian shipowning group, and to Daewoo, the Korean industrial conglomerate, that they take a stake in the company, which would control the three main yards of Gdansk, Gdynia and Szczecin.

However, until now Libaek's focus has been on the more modern and better equipped Gdynia yard, a few miles along the coast from Gdansk, and it has also held talks with the Szczecin yard, considered the most successful of the country's shipbuilders.

It will be an uphill struggle for the government to persuade foreign investors to include Gdansk in their future plans.

The Privatisation Ministry is ready to dispose of all or part of its 60 per cent stake in the Gdansk yard's equity, but industry sources believe any potential bidder is unlikely to offer more than a token purchase price and demand in exchange outright control of the yard.

But the assumption of control requires first gaining the consent of the yard's 7,000-strong workforce which owns 40 per cent of the equity. This stake was handed over by the government two years ago.

The workers have already voted to accept 2,000 job cuts but this is not enough to cancel out the shipyard's serious financial problems. Only a third of March's wages have been paid, telephones have been cut and power supplies are limited because of unpaid bills.

Last year the yard lost 85m zlotys ($32m), raising accumulated losses beyond 300m zlotys. Bank Handlowy, the main creditor, has refused further financing and has turned down a plan to write-down its loans as it holds Treasury guarantees on much of its lending to the yard.

But shipowners from Germany, Norway and Denmark recently provided some relief by waiving $19m in penalty payments.

These were sparked off by delays in delivering four vessels currently under construction.

They also accepted cuts in the standard of equipment of the four ships and agreed similar cuts on a total of 21 ships on order in a package worth up to $1m per ship.

In return they are demanding government guarantees against any losses they might incur if the ships are not completed.

The yard's management estimates that it needs 100m zlotys in working capital to complete ships under construction and additional loans to cover fixed costs worth around 13m zlotys a month.

But if no new owner emerges the government will have to decide whether to recapitalise Gdansk itself – and then face similar demands from other ailing industrial giants.

A last resort is to summon the political courage to close the yard known around the world as the birthplace of Solidarity.

Collective farmer with tsarist ambitions

Last month, Belarusian President Alexander Lukashenko was the Kremlin's most honoured guest, receiving kisses from the Russian president and a blessing from the Orthodox Patriarch after signing a union treaty with Russia.

But back home in Minsk, the Belarusian capital, Mr Lukashenko has been having a tougher time, as western observers and local activists have stepped up their accusations that he is turning the Slavic state of 10m people into an authoritarian regime harking back to the Soviet Union.

At a time when many other former Soviet cities are swiftly shedding their communist skins, in its outward appearance Minsk has become a throwback to the *ancien régime*. A towering statue of Lenin dominates the city's central square and nearby the republic's Soviet era red flag, which has been restored as the nation's official symbol, flutters proudly.

Belarusian politicians and their western sympathisers are ever more troubled by signs that Mr Lukashenko is reclaiming the substance, as well as the symbols, of an earlier era.

Hardliner: Belarusian President Alexander Lukashenko James Hill

Last week his security forces brutally broke up a demonstration by more than 40,000 protesters. At least 200 people, some of them uninvolved bystanders, swept up in a police dragnet, were arrested and held incommunicado for three days. Some activists could face criminal charges and lengthy prison sentences. Leading activists opposed to Mr Lukashenko have had their homes searched and been arrested by police. A few others have gone into hiding.

The crackdown, and Mr Lukashenko's gradual erosion of the independence of the judiciary, the media, parliament and even private business, have led some observers to accuse him of building "a police state" which is reminiscent of a "Latin-American style junta". Surrounded by a bevy of beefy but nervous aides in his official residence, Mr Lukashenko is unrepentant.

In an interview with the Financial Times, the president described last week's demonstration, which was a protest against his government and his hopes of forming a full political and economic union with Russia, as "a meeting of the fascist opposition". The demonstrators, he says, were "drunk and stoned", and he claims the journalists who were beaten at the rally were victims of the demonstrators and not of his security forces.

The demonstration was one of four mass opposition rallies held over the past month – including one yesterday. "We reacted calmly, we didn't provoke anyone," he said. "Let me assure you that if we had wanted a fight there would have been a real one. In democratic countries... they would just hit such people over the head with a truncheon and been done with all discussions."

Mr Lukashenko, aged 40and a former collective farm manager, is not embarrassed by domestic accusations – backed by a recent US State Department report on Belarus which accused him of muzzling the media.

According to the State Department, Mr Lukashenko enjoys "essentially complete control of the broadcast media" and has banned the main opposition newspapers from using the state postal services or the state's monopoly printing press, forcing them to publish abroad and rely on less effective private distribution channels.

Mr Lukashenko dismisses these charges, arguing that the opposition press is mentally unbalanced.

"If you read what the opposition press writes about me you would simply be horrified and you would say, they must be deranged people," he says.

Nonetheless, in what Mr Lukashenko holds out as an example of Belarusian liberalism, "we have not closed a single publication, although we ought to have done so, purely according to laws."

The Belarusian opposition chafes at Mr Lukashenko's cavalier disregard for the civil liberties of his compatriots, but what pains them most is the argument which is the president's trump card: his tremendous public popularity.

'For me the will of the Slavic peoples is a law. If their will is to send me far beyond the borders of our state I will go'

The recent demonstrations suggest that a sizeable number of Belarus's normally biddable people have become angry about the slide into authoritarianism.

But the silent majority, or at least 50 per cent according to independent pollsters, is still firmly behind the populist leader who was a political unknown until his surprise victory in Belarus's 1994 presidential elections.

"Am I a dictator or not?" Mr Lukashenko asks. "With such extraordinarily high popularity, why would I need to run the country with dictatorial methods?"

Belarus's despairing liberals attribute Mr Lukashenko's sustained popularity to the downtrodden, Soviet-era mentality of their people.

Seventy years of communism, they say, have taught many Belarusians to admire an iron-fisted leader who makes populist promises to the masses and keeps the streets clean, no matter what he may do to the chattering classes.

But some observers warn that Belarus, which today harks back to the Soviet past, could also be a harbinger of Russia's future.

Mr Lukashenko, who is the strongest advocate of a full political union between the two Slav states, is said to cherish hopes of one day being the leader of that greater Russian-Belarusian confederation.

Mr Lukashenko does not openly admit to such ambitions. But he is confident that "80 per cent" of the Russian people are already his supporters.

He coyly concedes: "For me the will of the Slavic peoples is a law. If their will is to send me far beyond the borders of our state I will go."

As the contest between Mr Yeltsin and his communist rival, Mr Gennady Zyuganov, intensifies in Russia, Mr Lukashenko's solemn pledge seems like comic relief from the main event.

But Mr Lukashenko is a skilful politician who has mastered the trick of catering to the post-Soviet electorate's dual craving for populism and for order. As the Belarusians have learned, he is an easy man to underestimate.

Chrystia Freeland

Swissair tries to defuse Geneva-Zurich row

Swissair yesterday announced a series of improvements in its services from Geneva in an attempt to curb criticism of its decision to switch 13 of 15 long-haul flights from the city's airport to Zurich airport, Reuter reports from Zurich.

The government, which has been critical of the airline's proposal, said it would look into the "consequences" of the Swissair measures. Last week federal and local officials asked the airline to reconsider its plans to transfer Geneva's connections with the Middle East, West Africa and Los Angeles to Zurich, with Geneva retaining links with New York and Washington as well as all European connections.

The controversy has highlighted tensions between western, French-speaking Switzerland, where Geneva is the dominant city, and the German-speaking east, centred on Zurich. There were also protests from businesses operating in the Geneva area.

Swissair said yesterday it would go ahead with its plan to ease intercontinental connections to Geneva after the reductions with 10 daily shuttle flights between Geneva and Zurich starting in November.

Passengers on the 30-minute shuttles to Zurich would have a transfer time of 40-60 minutes for the main intercontinental flights, a much quicker transit time than at most European airports. Ticket prices for long-haul flights would be the same whether boarding in Zurich or Geneva.

Swissair said airlines from countries which did not have air traffic agreements with Switzerland should be encouraged to gain access to the Swiss market in general and Geneva in particular. This would require mutual liberalisation of air traffic rights by Switzerland and the other countries involved.

The company said it would continue to offer more than 500 flights weekly between Geneva and north Africa, New York, Washington and many European destinations. Its regional subsidiary, Crossair, would add extra European flights from Geneva. "Swissair and Crossair currently serve 40 destinations via direct flights from Geneva. The growth in Crossair's European service over the last five years will continue," it said.

Swissair rejected a suggestion by Geneva politicians that Crossair should be allowed to offer intercontinental connections from Geneva. "Solid, long-term economic health is needed for the Swissair group to meet the demands that are being made of it," Swissair said in its statement.

NEWS: WORLD TRADE

US keeps rest of world hanging on the line

Frances Williams on why attempts to agree a global pact on liberalising telecoms trade have been delayed

Mr Renato Ruggiero, World Trade Organisation director general, put on a brave face yesterday after negotiators failed to meet Tuesday's midnight deadline for agreeing a global pact on telecoms liberalisation and instead put off a decision until February 1997.

He said he hoped for an even bigger telecoms liberalisation package then. "This is certainly the spirit in which I have presented the compromise: to safeguard what has been achieved, to safeguard the timetable and to give the possibility of an improvement."

The decision ended two days of frantic negotiations on how to prevent the collapse of the talks, once it became clear on Monday that the US did not intend to join an emerging accord.

Washington's trading partners did not disguise their frustration that their efforts had again been undermined by a US administration seemingly more concerned with appeasing narrow domestic political and industrial interests than with securing the wider benefits of a multilateral deal.

This time, moreover, the European Union was in no position to salvage an accord as it did for financial services last summer. Without the US market – accounting for a third of world telecoms revenues of $513bn in 1994 – an accord would have little value.

Instead, the 53 countries taking part in the talks – together accounting for over nine-tenths of world revenues – have agreed to put their best market-opening offers "in the fridge" for further improvement by February 15. All being well, the WTO telecoms accord will come into force on January 1 1998 as planned.

However, it will also be possible for countries, including the US, to downgrade or withdraw their market-opening proposals, with the risk once again that a deal could collapse.

Washington, whose own ambitious offer would have opened almost all domestic and international services to foreign competition, rejected a deal this week for three main reasons:

> A telecoms accord could save users more than $1,000bn over the next 12 years

● It did not have the necessary "critical mass" of good quality offers from others, especially in Asia. Ms Charlene Barshefsky, acting US trade representative, said more than 40 per cent of world telecom revenues and more than 34 per cent of global international traffic were not covered by acceptable offers.

Against that, a number of Latin American and eastern European countries made what even the US concedes were good offers to boost competition in their markets. Some 30 countries also agreed to adopt all or some of the pro-competitive regulatory principles designed to guard against abuse of market power by dominant domestic operators.

The US also secured most of what it wanted from the EU and Japan. Japan has fully opened its telecoms market to competition and dropped all foreign ownership restrictions apart from a 20 per cent limit on holdings in its two principal operators, NTT and KDD.

Meanwhile, EU ministers agreed to lift remaining curbs on foreign ownership of telecoms companies by France, Belgium, Spain and Portugal, provided the US kept its promise to relax restrictions on the landing of submarine cables.

Canada, alone of the four Quad leading traders, has not allowed majority foreign control of telecoms companies, though it has agreed to dismantle monopolies for overseas and satellite services.

● Washington wanted the right to reject applications to operate international services out of the US from carriers with or associated with a home-country monopoly.

The worry was that monopoly operators charging high prices to connect calls in their domestic market could take unfair advantage of cheap international rates on calls out of the US and other liberalised markets.

The EU and others said the US position was tantamount to imposing reciprocity conditions, contrary to WTO non-discrimination rules. However, Washington rejected as inadequate an alternative "competitive safeguards" clause which would have allowed national competition authorities to impose conditions on all licence holders to prevent abuse.

● The US said it intended to *withdraw satellite services* from its offer because only about 10 participants had guaranteed US access to their own satellite markets. The EU claimed this was really an attempt to hamper competition with US-based companies planning worldwide satellite-based mobile telephone systems.

There are some reasons to hope a deal may be easier to strike next February. Most governments, faced with the rapid pace of technological advance and increased competitive pressures, are moving towards ever-greater liberalisation.

A number of countries – among them Australia, Brazil, Switzerland and Thailand – plan legislation to increase competition in their telecoms *markets. South Africa, an* observer to the WTO talks, said on Tuesday it hoped to submit an offer in the near future.

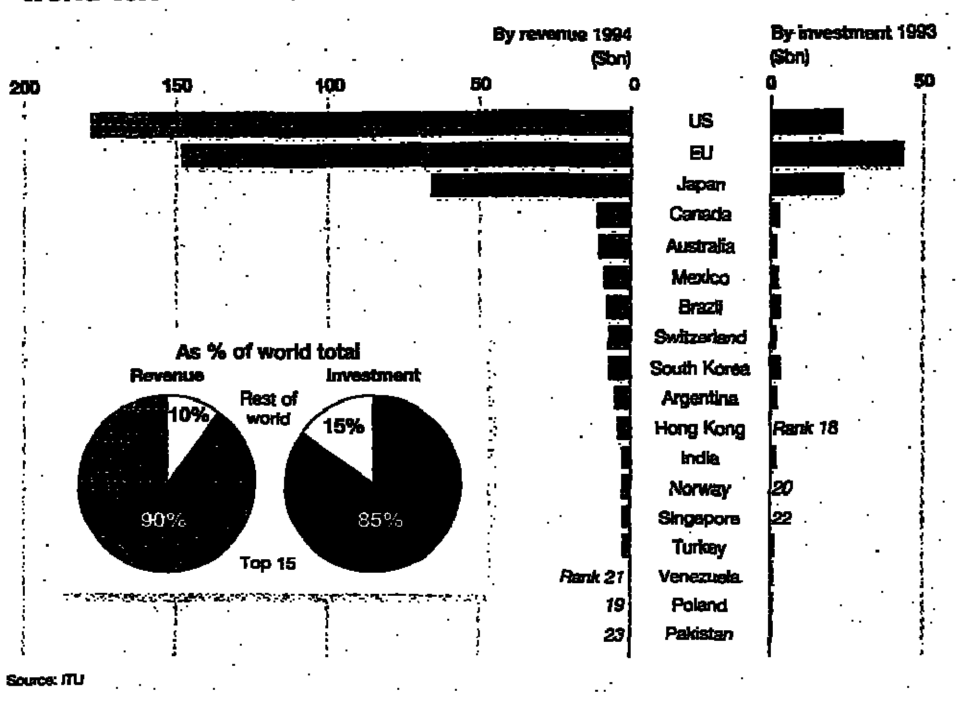
The economic stakes are high. According to the Washington-based Institute for International Economics, a telecoms accord could save users in rich and poor countries more than $1,000bn over the next 12 years in lower charges, better service and improved technology.

Foreign investment would also help developing countries raise the $60bn the World Bank says they need to spend over the next five years to bring their telecoms systems up to scratch.

But a success in telecoms would also give a boost to the *multilateral* trading system by showing that the WTO can effectively negotiate trade liberalisation in new domains like services, investment and competition policy.

The postponement of the telecoms talks follows only a partial deal in financial services last year while talks on maritime services, the third set of negotiations left over from the Uruguay Round, look set to founder in June.

World telecoms: the market leaders



Source: ITU

WORLD TRADE NEWS DIGEST

Brittan set for Tokyo chip talks

Sir Leon Brittan, the EU trade commissioner, will discuss trade in *semiconductors* when he visits Japan with 30 European businessmen next week. Mr Tomio Tsutsumi, vice minister of the Japanese Ministry of International Trade and Industry, said the two sides would discuss European participation in the talks between Japan and the US over the extension of the bilateral semiconductor accord. The US and Japanese governments are currently wrangling over the extension of the bilateral trade agreement, which sets a quota of foreign market share in Japan's semiconductor market. The accord expires on July 31.

Along with Japan, the EU is opposed to an extension of the agreement, but it is calling for a new semiconductor trade framework which involves Europe. *Emiko Terazono, Tokyo*

VW to invest in India

Volkswagen, Europe's biggest carmaker, is the latest vehicles group to unveil plans for the expanding Indian market, where it intends to establish a joint venture with Eicher Motors. The deal involves cars from VW's Audi and Skoda *subsidiaries*. Audi plans to introduce its A6 executive saloon, while Skoda, the Czech carmaker, expects to launch its Felicia model by the end of this year. The Skoda models will at first be imported as semi-knocked down kits. However, the company has ambitious plans to raise output from about 100 cars in this year to 60,000 units a year by 2000. Audi has more modest aims for its executive model. Initial production plans for the A6, which will cost about Rs700,000 ($20,468), envisage output of 6,000 units a year. *Industry Staff, London*

Greeks to market Tirana centre

DTZ Mihalos of Greece, part of an international consortium of property consultants, has been appointed to market the World Trade Center in Tirana, the Albanian capital. The development by Di Vincenzo Estero of Italy is claimed to be the first large-scale commercial office project in the city.

The 30,000 sq metres development has been designed to cater for companies seeking to establish in Albania. It will be linked to a network database linking more than 300 World Trade Centres in other countries and provide occupants with market information, advice on importing/exporting as well as secretarial and translation services.

The first accommodation is due to be completed by early 1998. *Andrew Taylor, Construction Correspondent*

■ An Anglo-Malaysian joint venture will manage the construction of £75m of new facilities, including south-east Asia's largest covered car park, at Sepang's new international airport south of Kuala Lumpur, Malaysia. The contract has been awarded to SSP-TBV, a joint venture between the project management arm of Tarmac, the UK contractor, and Sepakat Setia Perunding, Malaysian consulting engineers.The new international airport due to open in 1998 in time for the Commonwealth Games will cater initially for 25m passengers a year, rising eventually to 80m. *Andrew Taylor*

■ Three Swedish companies, Tele8, Telenordia and Banverket, and Danish telecommunications group Tele Danmark will work on a new undersea fibre optic telephone cable link between Denmark and Sweden. The project, due for completion in October 1996, involves sinking a cable with capacity for 30,000 telephone calls between Elsinore, north of Copenhagen and Halsingborg across the narrow straits separating the two countries. *Reuter, Copenhagen*

US and Japan agree truce on aviation rights

By Gerard Baker in Tokyo

Japan and the US yesterday agreed to a temporary truce in their dispute over passenger aviation rights between the two countries.

Negotiators from the two sides settled on a short-term settlement "to avoid a battle of imposing sanctions on each other during the high summer season," said Mr Jiru Hanyu, Japan's senior negotiator at the talks in Washington. The discussions failed to bridge the substantive gap over how to begin reviewing the passenger section of their 40-year-old bilateral aviation treaty.

Further talks aimed at reaching a lasting settlement are scheduled in Tokyo for June 3 and 4.

Under the terms of the truce both sides will temporarily approve outstanding requests by airlines for new flights that have been deferred because of the dispute.

The US will allow Japan Airlines (JAL) to operate three weekly flights between Tokyo and Kona, Hawaii, from tomorrow until October 26. JAL will also be permitted a rise in the number of flights from Sendai to Honolulu from three to seven weekly for a five-week period beginning tomorrow.

In return, Japan will allow United Airlines to double its weekly flight frequency between Los Angeles and Tokyo from the current seven to fourteen for the same five-week period, and to fly seven weekly flights from Kansai International Airport in Osaka to Seoul until October 26.

Mr Hanyu, counsellor for international aviation at the transport ministry, said the period of only five weeks for the Sendai-Honolulu and Tokyo-Los Angeles operations represented a form of "hostage-taking", to ensure both sides lived up to commitments made for resuming talks next month.

At those discussions the two countries will again try to settle their long-standing dispute, which centres on differing interpretations of the 1952 bilateral treaty. The main question is one of "beyond rights" – whereby US airlines are allowed to pick up passengers in Japan and fly them on to destinations in Asia.

Japan claims the treaty allows such rights only as secondary to the main US-Japan traffic. But a significant proportion of the US airlines' passengers in Asia now originate in Japan.

Soap smugglers clean up at Lever Brothers' expense

High tariffs create opportunities for illegal trade, but multinational consumer groups still see prospects for investment in Pakistan

Free trade is a wonderful thing, but not when *smugglers are the* beneficiaries at the expense of legitimate business.

So say Pakistani companies such as Lever Brothers Pakistan, part of the Anglo-Dutch Unilever group, which face fierce competition from illegal traffic in consumer goods. By evading import duties and taxes, smugglers can offer goods at very competitive prices and sharply reduce the *sales and profits of local manufacturers.*

The lawlessness in neighbouring Afghanistan and in the tribal areas on the Pakistani side of the frontier has made life particularly easy for the smugglers, who trade in everything from cars and fertiliser to tea bags and soap.

Afghanistan is in effect a duty-free zone, and the abuse of transit trade arrangements, whereby goods supposedly destined for Afghanistan have been imported through Karachi and eventually diverted back to the Pakistani market, has exacerbated the problem.

Take *Lux soap*, a *Unilever* brand so universally popular that it can be traded almost like a commodity. A trader can buy a tonne of Lux soap bars in, say, Dubai, Hong Kong or Singapore for about $1,600, equivalent to Rs57,000; the smuggler's additional costs for transport, finance and bribing gunmen at roadblocks probably amount to about Rs20,000, making his total cost about Rs77,000 a tonne.

To make the same Lux soap in Pakistan, Lever Brothers says it spends about Rs54,000 a tonne. So far so good. But it must also pay an additional Rs37,000 in import duties for its raw materials, sales tax and excise duty, and it spends Rs4,000 a tonne advertising the brand. That brings its total costs to Rs95,000 a tonne. It is not hard to see why smuggling is profitable.

Soap smuggling has eased because the Pakistani government has put a stop to the Afghan transit trade for many categories of imports. But Lever now faces a smuggling problem with another of its products – tea, which is also subject to heavy taxes.

"Every one of our products is *carrying a huge duty burden,*" says Mr Anthony Crouch, commercial director of Lever Brothers Pakistan.

Both Pakistani and foreign business executives say the problem is not just the existence of smugglers, but the fact that the incentives for them to smuggle are so high.

The tax burden on legitimate companies, they say, is much too heavy because governments look at industry more as a source of revenue than of growth and employment.

The import tariff regime is not organised as it should be to impose low tariffs on raw materials and high ones on finished goods that compete with local manufacturers. Pakistani industrialists also complain *that their companies are taxed* because they are easy to tax, while the wealthy landowners still pay almost nothing because agriculture is largely exempt from taxation – and because most politicians are landowners.

Although the government of Ms Benazir Bhutto is taking tentative steps to broaden the tax base and is moving towards a reduction of import tariffs in line with international trade agreements, it is likely to be several years before industry finds its tax burden greatly lightened.

In the meantime, companies such as Unilever have not given up hope. Instead they are confident this large consumer market – with a population of *130m – will continue to grow.* Unilever is planning to invest Rs1.5bn in expanding its food interests, especially ice cream and processed vegetables.

It is also in the throes of rationalisation. A merger is planned between Lever Brothers, in which Unilever has a 70 per cent stake, and Brooke Bond Pakistan, where Unilever has 40 per cent, to create a new company called *Unilever Pakistan.*

The Unilever parent brought Brooke Bond International in 1984 and the Pakistan merger would be the last of a series of similar deals that have taken place in India, Sri Lanka and elsewhere.

Mr Crouch says there are three motives for the merger: savings from economies of scale; ending competition between two Unilever brands *of tea (Lipton tea is sold by* Lever); and the creation of a Pakistani group strong enough to implement Unilever's ambitious programme for increasing its presence in the processed food market.

Lever launched Wall's ice cream in Pakistan only a year ago and, encouraged by the response of consumers, is eager to expand.

It also wants to move into tomato products, such as ketchup, and chilled vegetables for the growing number of urban shoppers. There is a plentiful supply of good quality local produce, but distribution is poor. In four or five years, the company is likely to look at making prepared meat products and fish.

Pakistan, in short, is moving towards a modern consumer society. At present, most of the ice cream consumed is unbranded "kulfi" made by local artisans, and most people wash their clothes using semi-industrial bar soap rather than the kind of washing powders made by Unilever.

But products such as Lux and Wall's ice cream are making inroads. And there is one good thing about ice cream: it has to be kept cold, which makes it hard to smuggle.

Victor Mallet

A Rawalpindi shopkeeper displays smuggled soft drink cans which carry a higher profit margin than Pepsi produced under licence

Reuter

NEWS: INTERNATIONAL

World football body faces TV rights row

By Jimmy Burns

THE leadership of Fifa, world football's governing body, is facing a potential boardroom revolt over its controversial handling of future World Cup marketing and television rights.

European members of Fifa's executive committee are planning to try to force Mr Joseph Blatter, the organisation's general secretary, and Mr Joao Havelange, his Brazilian president, into making the contracts part of an open and transparent bidding process at a meeting scheduled for the end of the month.

Mr Blatter was hoping the committee would accept unconditionally his interim report on the negotiations. But it emerged yesterday that Fifa's powerful European lobby will reject it unless he convinces them that negotiations on the contracts are being conducted in a fair and open manner.

The warning was issued yesterday on behalf of the EU's nine members by Mr David Will, Fifa's Scottish vice-president, after two leading sports companies claimed they were being deliberately excluded from any serious discussion of the contracts in contravention of earlier public assurances that there would be an open bidding process.

The growing row over the contracts in recent weeks has included critical statements of the Fifa leadership by two other executive members: Mr Jack Warner, president of the American footballing confederation, and Mr Chung Mong-Joon, the South Korean vice-president of Fifa.

Yesterday, Mr Will said: "This is an issue that European committee members feel very strongly about. There should be an open marketing bid and each bid should be judged on its merit." He added: "I am obviously concerned and want to know what's going on."

Mr Will is a close ally of Mr Lennart Johansson, the president of Uefa, Fifa's counterpart in Europe, who is hoping to succeed Mr Havelange as president of Fifa.

He was speaking after it emerged that Mr Mark McCormack had protested to Mr Blatter about the way his initial bid for the television contracts for the World Cup in 2002 had been handled.

In a letter dated April 26 to Mr Blatter, a copy of which has been made available to the Financial Times, Mr Eric Drossart, the vice president of Mr McCormack's International Management Group, claims that "preferential treatment" is being given to Fifa's long-term marketing agent ISL, and the European Broadcasting Union-led consortium which already has the TV rights for the 1998 World Cup

"Whilst I welcome the apparent invitation from Fifa to be involved in the bid process for World Cup rights, there are glaring inconsistencies concerning the basis on which the rights are being made available...It is difficult to believe that Fifa genuinely wish to consider our offer on a properly competitive basis," Mr Drossart states.

IMG's move follows a similar protest from Team, the Lucerne-based marketing arm for the Champions League run by Uefa, and within days of confirmation that Mr Rupert Murdoch's News Corporation was considering making a multi-billion dollar bid for the world broadcasting rights for the 2002 and 2006 World Cups.

Havelange: urged to make bidding process open and fair

Within Fifa's executive committee, there is growing concern that Mr Blatter, with the tacit endorsement of Mr Havelange, is reneging on a promise of an open bidding process made to committee members in December.

Mr Blatter has told committee members that he is continuing negotiations with ISL and the EBU-led consortium even though an option on exclusive negotiation rights for the two groups expired at the end of February.

The executive committee has been seeking to reform Fifa's leadership structure.

Fifa headquarters were closed yesterday because of May Day. But last month Mr Blatter wrote to IMG and Team saying that, while it was continuing negotiations with ISL and the EBU-led consortium, it was inviting proposals from other "interested parties" on the basis of minimum conditions for the 2002 and 2006 world cups by May 15.

Both Team and IMG are claiming that the deadline they have been given and the unclear way in which the minimum conditions have been laid out have put them at a huge disadvantage in a serious bidding process.

Pact will have little effect, say abolition groups

UN edges close to accord on landmine restriction

By Frances Williams in Geneva

Negotiators said yesterday they hoped a United Nations pact to restrict the use of anti-personnel landmines would be agreed tomorrow, despite last-minute objections by Pakistan.

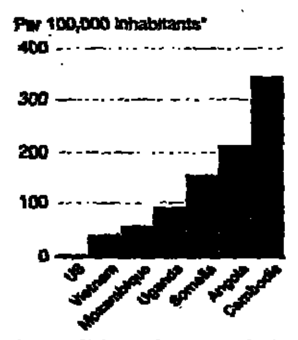
The accord, designed to strengthen a 1980 UN convention on inhumane weapons, will bar or limit the use of certain kinds of mine. But it will fall far short of the outright ban now being urged by many humanitarian organisations and more than 30 governments, the latest being Australia, Germany and Britain.

Groups campaigning for abolition say the accord will have little impact on the huge toll of civilians killed or maimed by mines, put at 20,000 a year. The UN estimates that some 110m mines have been laid in 64 countries, among the worst affected being Cambodia, Angola, Somalia, Mozambique and Afghanistan.

However, many countries, including China, Russia and India, say they still have a military need for mines to defend their borders.

Admitting that the accord was a modest step, Mr Johan Molander of Sweden, chairman of the negotiations, said yesterday that it would nevertheless, if applied, save "many, many lives".

Amputees



Source: ICRC *Estimates, July 1994

Pakistan is unhappy with the wording on mine exports which, western diplomats speculated, reflects its wish to continue supplying Kashmiri separatist groups in India. But it has not indicated whether it plans to block the necessary consensus of the 55 parties needed to amend the 1980 treaty.

The draft ready for approval tomorrow would prohibit the use of non-detectable anti-personnel mines and require all mines to be self-destructing and self-deactivating except in guarded fenced-off minefields.

However, to the anger of humanitarian groups, this requirement would not come into force for nine years – a delay insisted on by countries with large stockpiles of non-detectable mines.

The groups also argue that self-destruct and deactivation devices are inherently unreliable, though the draft treaty stipulates that only 1 in 1000 mines should still function after 120 days.

In addition, the revised treaty would ban the export and transfer of prohibited mines from the date of entry into force, though countries have agreed to make this operative immediately. About two dozen states, recently joined by China, are currently observing a UN moratorium on all or some mine exports.

The treaty would also extend the convention to internal conflicts, put the responsibility for clearing mines on those laying them, and make violations of its provisions a war crime as defined in international law.

Shifting sands of influence in central Asia

Gillian Tett reports on a new role for an old cold war institution

Mr Kandil Karimov, a shrunken Tajik peasant, stood by his partly ruined house in despair. "My neighbour will kill me – he has already taken half my land," he said, gesturing at the muddy patch where his prized pomegranate trees were recently cut down by a fellow villager.

Three years ago some 75,000 Tajiks fled to Afghanistan after a bloody civil war. Though many, like Mr Karimov, have returned, some have been killed and others harassed.

Now Mr Karimov has an unlikely champion. Earlier this year the Organisation for Security and Co-operation in Europe asked the local Tajik authorities for a legal review of his case.

Whether Mr Karimov will win is unclear. But far more is at stake than the pomegranate trees.

For the OSCE's presence is one sign of a broader shift now under way in the west's involvement in this geo-politically sensitive corner of the former Soviet Union.

In recent months the OSCE has been attempting to re-invent its role. The experiment is still in its early stages. But some diplomats are already wondering if the OSCE, rather than the UN, might be the group best equipped to serve the west in attempts to contain the region's turbulence.

When the OSCE was set up in 1973, it was billed as a conference on military security between the communist bloc and the west. But the collapse of the Soviet Union in 1991 meant that, because it was deprived of its traditional role as a buffer in Europe, some diplomats suspected it would simply fade away.

In late 1994, however, it made a last-ditch attempt at renaissance. It changed its name – from the Conference for Security and Co-operation – and announced that it intended to spread democratic values and act as an "early warning" system for ethnic conflict.

Some western diplomats remained cynical. With a budget of $30.6m, it has limited resources. And its cold war tradition of giving an equal voice to all members – however shocking their human rights record – fuelled suspicions that it lacked clout.

As one western diplomat says: "The OSCE has usually been so careful not to offend governments that it barely has teeth."

This scepticism was not entirely squashed when the OSCE organised a conference on regional security in Uzbekistan and the Tajik capital Dushanbe last week. Although Mr Gancho Ganchev, the OSCE representative in Tajikistan, criticised Tajikistan's democratic record, the language remained polite – and neither the Tajiks or Uzbeks showed much sign of taking western-style human rights values to heart.

Nevertheless, this public diplomacy is misleading. For the real test of the group's work – and future – now lies not in the bland conferences, but its new self-appointed grassroots work.

One sign of this has been the OSCE's appointment – on a US initiative – as a monitor for elections in Bosnia. However, a second test is a recent request from the UN High Commissioner for Refugees that the OSCE take over its work in Tajikistan.

Since the UNHCR left the republic last year, the OSCE is now running three field stations which seek to uphold human rights and encourage peace, partly by taking up disputes such as Mr Karimov's.

These operations have been surprisingly effective so far. Indeed the factor that has sometimes been the OSCE's greatest weakness – its principle of consensus – has given it an important advantage. For the fact that the Tajik government is itself a member of the OSCE has allowed OSCE officers considerable leverage over local Tajik officials.

If the experiment is successful, some officials hope the group could move into other UN-type work in the future.

Meanwhile, continued skirmishes along the Tajik-Afghan border are casting doubts on the role of Tajikistan's UN military observers, who are reported to be costing some $4m a year.

OSCE officials insist that the organisation is still a long way from assuming any direct role as military observer. However, if the Tajik and Bosnian operations prove successful, the possibility might move on to the agenda.

Few western diplomats want to allow Russia an entirely free hand in the region. But equally few have any faith in the effectiveness of an over-stretched and disillusioned UN as regional policeman.

And with Tajikistan likely to remain turbulent for many years, it is not simply Mr Karimov who has reason to hope that the OSCE's mission turns out to be effective.

Japan's vehicle sales fall in April

By Gerard Baker in Tokyo

New vehicle sales in Japan fell in April for the second straight month, according to figures published by the Japan Automobile Dealers' Association yesterday. Registrations of new vehicles dropped 0.1 per cent on a year earlier to 374,405.

The main reason for the fall was a big drop in sales of commercial vehicles. Trucks declined 2.6 per cent to 118,182 units, while buses fell 18.3 per cent to 1,593 units.

A slight rise of 1.2 per cent in sales of passenger vehicles to 254,630 units was not enough to offset the commercial side's slump.

Once again, the figures showed the growing Japanese taste for large, imported cars. Of the total, foreign-made vehicles made up 9 per cent, at 33,042, a jump of 23.7 per cent from a year before.

Of the leading Japanese car makers, only two, Honda and Suzuki, reported sales growth. Toyota, the largest, saw new registrations drop 4.9 per cent; Mazda, now controlled by Ford of the US, reported a 0.1 per cent decline. The biggest fall was registered by Isuzu, whose sales dropped 42.9 per cent.

Car and truck sales had been rising steadily since reaching their low point in the current cycle in the summer of 1994. An association official played down fears of a stalling recovery. "We cannot tell whether the upward trend until February has changed or not without seeing sales figures for one more month," he said.

● Japan's foreign exchange reserves reached another global record of $205.7bn last month, the finance ministry said yesterday. The monthly increase of $1.7bn was the thirtieth straight rise, bringing total reserves to a record high for the fifteenth consecutive month.

But the increase in April was considerably below the average monthly rise in the past two years, reflecting somewhat subdued intervention in foreign currency markets by the Bank of Japan.

US rejects India, China funds claim

By Edward Luce in Manila

The US yesterday rejected demands by China and India that they be made eligible for the Asian Development Bank's soft-loan window which extends subsidised loans to poorer Asian nations.

Despite being technically eligible for loans from the Asian Development Fund, the two countries have been excluded due to a shortage of donor funds, largely the consequence of arrears run up by the US. East Asian members are reluctant to raise their share to cover the shortfall and without an accord by donors to replenish its coffers, the ADF looks likely to run dry this year.

The US, which is in arrears of $337m to the ADF fund of $4.2bn agreed in 1992, rebuffed the demands of China and India, saying the funds should be directed to smaller economies such as Cambodia.

"I do not believe China and India should participate in the ADF," Mr Jeffrey Shafer, US Treasury under-secretary, said yesterday. "The US thinks the resources of the ADF should be available to those countries that do not have the ability to tap capital markets."

But China and India, which are both entitled to the World Bank's soft-loan funding through the International Development Association, said their exclusion was unmerited.

US reluctance to honour its debts to the ADF, owing mainly to congressional opposition to foreign aid spending, has led to the exclusion of China and India, diplomats said. "We call on the international community and the ADB to back our efforts in poverty alleviation, by making ADF resources available to China," Mr Yin Jieyan, head of the Chinese delegation, said.

The US delegation yesterday failed to produce specific pledges on the clearing of its arrears to the ADF before the fund runs out at the end of this year. Other donors, notably leading European countries, said they would not contribute to ADF replenishment before the US paid its debts.

Mr Shafer said the ADB should direct money from net earnings on its market-based loans to boost the next ADF. Bank officials say they would be unwilling to siphon off more than about $100m from the ADB's capital flow, which is unlikely to make a real difference to the replenishment.

Mr Shafer said the Clinton administration would try to persuade Congress it was to the country's commercial advantage to pay the arrears, due to the benefits of "reflows" to the US from ADF procurement contracts.

HK call to back special Asia bond clearing network

By Louise Lucas in Hong Kong

The Hong Kong Monetary Authority yesterday urged the Asian Development Bank to back proposals for an Asia-specific network of bond clearing and settlement systems, as a means to enhance the appeal of the region's financial markets to domestic and overseas investors.

A robust bond market is seen as pivotal to the region's enormous investment demand. Projections by the ADB show Asia needs US$280bn a year to fund infrastructure needs, or more than $1,000bn to the year 2000. A big shortfall exists between this and available funds, despite the region's high savings rate of over 30 per cent and substantial official reserves, estimated at $600bn or 40 per cent of world total.

At the 29th annual meeting of the board of governors of the ADB in Asia, Mr Joseph Yam, the Hong Kong Monetary Authority's chief executive, drew a parallel with Euroclear, set up to facilitate book-entry clearing and settlement of eurodollar bond transactions, helping to spur the eurodollar bond market in 1968.

"An AsiaClear system to clear Asian and international bonds in the Asian time zone with reduced settlement risk is now a distinct possibility," he said. "Payment systems could similarly be linked as a network, hopefully on real time. Asian financial markets would become a lot more attractive to investors in and outside this region."

The Asian bond markets are reckoned at $338bn, or 2 per cent of comparable OECD bond markets. Efforts to stimulate the market have taken various forms: banks sought to create a "dragon bond" market, but this Asian-originated and distributed paper largely ended up with central banks. Governments such as Hong Kong have sought to develop benchmarks and install debt securities clearing systems.

While the idea of a regional bond clearing system has been mooted in the past, it was initially seen as a centralised system: fears of bureaucratic and commercial hurdles meant it never gained ground.

Now, Mr Yam said, domestic bond clearing systems and telecoms technology have developed to a point where Asia can have its own regional system rather than a centralised one.

An AsiaClear system would make resource mobilisation through financial intermediation more effective, he said. "The ADB, as the region's premier financial institution and bond issuer, should explore and support the development of AsiaClear and other financial infrastructural networks."

Thai inflation rate fall eases fears on economy

By Ted Bardacke

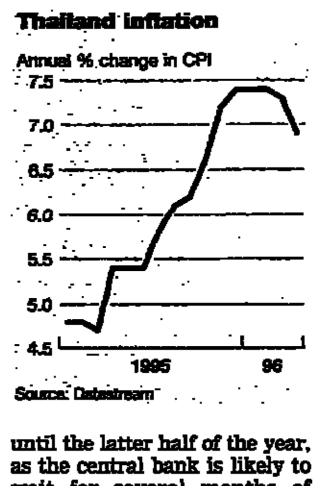
Thailand's inflation rate has registered its first steep decline in more than a year, with consumer prices in April just 6.9 per cent higher than a year earlier, the Ministry of Commerce said yesterday.

Until April's decline in the inflation rate, Thai consumer prices had risen at an annual rate of more than 7 per cent for four straight months. This has fuelled worries that the government's attempts to slow the economy were failing and forcing the central bank to keep interest rates high.

The decline in the inflation rate reinforces other indicators showing a cooling of the economy – private investment, manufacturing activity and commercial credit growth have all declined throughout 1996.

However, analysts do not expect an interest rate cut until the latter half of the year, as the central bank is likely to wait for several months of decline before making a potentially expansionary move.

April's inflation rate is still significantly higher than the central bank's overall annual target of 4.9 per cent for 1996.



Source: Datastream

Last month's decline in inflation was led by falling prices for fresh fruit and vegetables, indicating that the effects of last year's record flooding throughout the country may finally be receding.

The rate of wholesale price rises fell further – up 6.2 per cent in April from the same month last year, compared with annual rates of 6.7 per cent in March and 7.2 per cent a year ago.

Yet as fears recede on the cost side, new concerns are emerging on the demand side. Thai labour unions used yesterday's May Day holiday to submit demands for a 15 per cent increase in the minimum wage, which now stands at Bt145 ($5.70), up from Bt135 last year. A committee made up of representatives of government, labour and employers will decide on the amount of the rise by the end of June.

Sri Lanka growth at 5.5%

By Amal Jayasinghe in Colombo

Foreign investor interest in Sri Lanka fell sharply last year because of the Mexican crisis and the domestic drag of the Tamil separatist war, but buoyant export demand still allowed the economy to grow by 5.5 per cent, the Central Bank said yesterday.

In a preliminary review of the economy, the bank said the country needed to attract more foreign and local private capital. The government's privatisation programme should be accelerated in a bid to achieve non-inflationary growth.

"There is an urgent need to increase the rate of capital formation, without which the country could weaken its past achievements in human development," the bank said.

Estimated GDP growth rate was marginally lower than the 5.6 per cent achieved in 1994, but per capita income rose from $656 to $713 last year, giving Sri Lanka the highest living standard in South Asia.

The bank said the country's moderate growth was led by exports, which benefited from a 7.5 per cent depreciation of the Sri Lankan rupee against the US dollar and favourable prices for the country's main export commodity, tea.

The budget deficit was 8.4 per cent of GDP against 10 per cent in 1994; the balance of payments current account deficit narrowed to 4.2 per cent of GDP from 6.5 per cent. The figures were better than forecast by private analysts, but the 11.5 per cent inflation rate at the end of 1995 was worse than the projected 7.7 per cent.

ASIA-PACIFIC NEWS DIGEST

China police halt May Day protest

Chinese police broke up an International Labour Day demonstration yesterday and detained several people after Beijing vendors protested at alleged seizure of their goods. More than 12 police grabbed protesters and pushed onlookers away from the demonstration outside a market in east Beijing. Stallholders said more than 100 vendors had been demonstrating outside the market and at government and police offices elsewhere in the capital.

Over 150 clothes vendors had had all their stock seized, and had been locked out since. Vendors blamed the market's management for the seizure. Appeals to police had met with no response. "Today is Labour Day. They are very angry and they need jobs," another protester said.

The stallholders said they had invested their savings to build the Baiyun Clothing Wholesale Market, expecting to keep stalls there for 12 years, but had been told to leave after only one. Unauthorised demonstrations are illegal in China, and police usually clamp down quickly on any signs of labour unrest. *Reuter, Beijing*

Food warning for Asian nations

Asia, already home to over 500m malnourished people, will have a harder time finding food as many countries focus on industrial growth instead of agriculture, non-governmental groups said yesterday. At a two-day meeting to draft a regional platform ahead of the World Food Summit in November, Mr Obaidullah Khan, regional representative for the UN Food and Agriculture Organisation, said that while global agricultural output was keeping up with population growth, the distribution was not equal; poorer countries were not receiving their share.

"The FAO projects that through 2010 food production will grow but at a much slower pace. The food security situation will be more fragile than before. Many self-sufficient countries will become food importers. As lower-income nations are forced to buy more food from abroad, they will have a harder time paying food bills." *Reuter, Bangkok*

Indian state governor quits

Mr Shiv Shankar, governor of the south Indian state of Kerala, resigned yesterday, following allegations of corruption against him by India's top government lawyer. Mr Dipankar Gupta, solicitor-general, told the Supreme Court charges were ready to be laid against Mr Shankar and Mr Motila Vora, governor of Uttar Pradesh, both senior members of Prime Minister P V Narasimha Rao's Congress Party, the Press Trust of India (PTI) reported.

"Investigations against both these persons are complete and the only impediment in proceeding further to file substantial charge sheets against them is the immunity enjoyed by them under Article 361 of the Constitution," Mr Gupta said.

Mr Shankar faxed his resignation to President Shankar Dayal Sharma saying he was innocent and would fight to clear his name, PTI said. Mr Vora said in Lucknow he was not aware of any moves against him in Delhi. India is in the midst of general elections. Mr Vora and Mr Shankar were both appointed to their positions by Mr Rao. *Reuter, Delhi*

HK talks tough to Beijing

The British colonial administration in Hong Kong will refuse to co-operate with a legislature Beijing plans to install in the territory, Ms Anson Chan, the island's chief secretary, said yesterday. She had told China's top official on Hong Kong affairs that the administration would not help the provisional appointed legislature Beijing wants to install when the territory reverts to Chinese sovereignty in July 1997.

"The clear and consistent position of the Hong Kong and British governments is that such a body is neither necessary nor desirable," Mrs Chan told the Hong Kong Legislative Council, which Beijing has promised to scrap. The British side maintains Hong Kong lawmakers elected last September should serve their full four-year term until 1999. But Beijing has refused. *Reuter, Hong Kong*

Seoul fights burden of bad loans

S Korea wishes to avoid a Japan-style bank crisis, writes John Burton

South Korea is viewing with alarm the banking crisis in Japan, fearing its own banking system may be engulfed by similar troubles.

Seoul now appears set on cleaning up the balance sheets of the nation's 25 commercial banks as Korea prepares to join the Organisation for Economic Co-operation and Development this year.

Failure to do so could threaten the stability of the banking industry when it faces increased competition due to the wider market access under OECD guidelines.

In the past week, Seoul has introduced measures to rescue the banks from years of poor earnings and the burden of bad loans. The new banking policy includes easing restrictions on bank loans to the big industrial groups, or *chaebol*. The bank credit limits were meant to curb the economic dominance of the *chaebol*, but instead it left banks with a growing dependence on the risky small business sector, which is suffering a record number of bankruptcies.

The government also cut the reserve requirement ratio, which is the average proportion of total deposits banks must place as reserves with the central bank, in an effort to boost bank profits.

This followed a 18 per cent fall in combined net earnings to Won998bn ($1.28bn) last year as the sluggish performance of the Seoul bourse led to a sharp drop in securities-trading gains, which had become a main source of income for the banks.

Some of the country's leading banks would have gone into the red last year if the government had not decided to reduce their required reserves for stock investment losses to 30 per cent from 100 per cent.

Such accounting tricks, however, can not disguise the fundamental structural weaknesses of the banking system.

The main problem is the large amount of dud industrial loans that the banks have accumulated in the last decade. They were forced by the government to provide low-interest capital to strategic industrial projects that in some cases failed to repaid the loans.

Combined non-performing loans for the 25 banks amounted to Won2,300bn last year, or 0.09 per cent of total lending, according to the Office of Bank Supervision.

But most analysts believe the actual figure is close to Won10,000bn since many troubled loans, mostly related to the state-directed rescue of the troubled shipbuilding and construction industries in the mid-1980s, are not counted in the government's estimate of bad loans.

In spite of their troubles a decade ago, the *chaebol* remain the most creditworthy borrowers in Korea. But the banks have been under state pressure to lend to the underdeveloped small business sector, while curbing loans to the conglomerates. *Chaebol* loans accounted for only 13.9 per cent of total bank lending last year.

"Korean banks are a potential disaster area, but the problem could be easily solved if the government stopped interfering and allowed the banks to lend to strong corporate borrowers instead of propping up shakey small companies," said Mr John Wadle, a analyst for J.P. Morgan Securities in Hong Kong.

Officials have now come to same conclusion. In an attempt to strike a balance between small and large corporate borrowers, the government last week announced that its previous policy of limiting bank credits to the 30 largest *chaebol* will only be applied to the 10 biggest groups from June.

However, the banks still face a challenge attracting business from the large industrial groups. They are increasingly relying on direct financing from the stock and bond markets and borrowing abroad, where interest rates are much lower than in Korea.

The governments's decision to cut the reserve requirement is expected to add Won300bn to bank profits this year. But the measure is also a mixed blessing since it is expected to lower interest rates that threatened to squeeze lending margins.

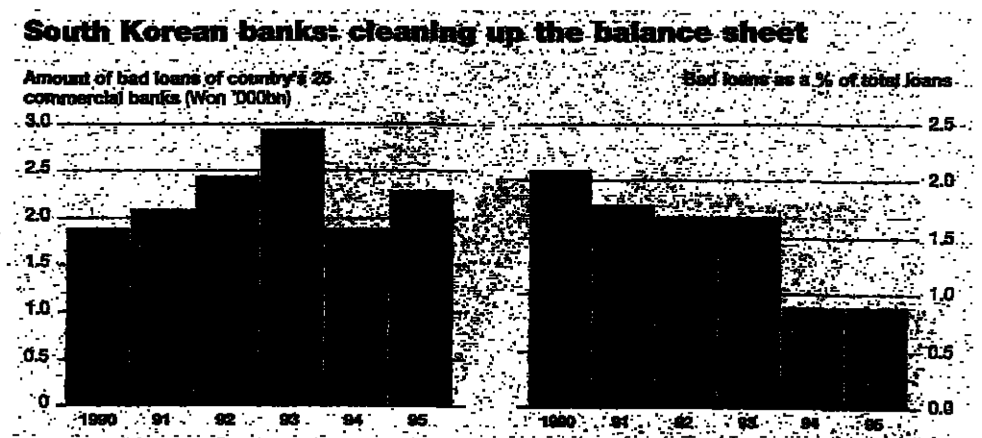
In addition, the central bank is phasing out low-interest policy loans to commercial banks that enabled them to reap healthy interest margins when lending to small businesses.

The banks are hoping that lower interest rates will result in higher loan volumes that will guarantee continued growth in interest income, up 28 per cent last year.

The next likely stage in the government's programme to rehabilitate the banking sector is to encourage mergers that would lead to cuts in their bloated workforce and improve their mainly inefficient operations.

Mr Rha Woong-bae, the deputy prime minister for economic affairs, revealed this week that the government will soon propose tax incentives and other financial aid to encourage such mergers.

Bigger banks and other financial organisations would be better able to cope with changing market conditions resulting from financial liberalisation, he explained.



Source: Office of Banking Supervision

The president of South Korea's largest commercial bank has been arrested for allegedly accepting kickbacks in return for providing loans to an ailing construction company, writes John Burton.

The case illustrates how strict government restrictions on bank lending have resulted in companies bribing bank officials to obtain credit. Mr Rhee Chul-so, the president of Korea First Bank, was arrested early yesterday morning for allegedly receiving Won250m in bribes for providing Won113bn in loans to the Hyosan construction group in 1993 and 1994. Hyosan had been unable to obtain bank loans for the construction of tourist facilities because of a law banning credit for such projects unless they are located in government-designated tourist areas.

Prosecutors alleged that Mr Chang Jang-son, the Hyosan chairman, paid Mr Rhee to acquire capital for the construction of a ski resort and condominiums and the purchase of two hotels.

NEWS: THE AMERICAS

Public pressure forces out Copps over pledge on Goods and Services Tax

Deputy PM of Canada resigns post

By Bernard Simon in Toronto

Ms Sheila Copps, Canada's deputy prime minister, resigned her cabinet post and parliamentary seat yesterday after a week of unrelenting public pressure to honour an election pledge to quit if the government failed to replace the Goods and Services Tax.

The 7 per cent GST was introduced by the former Progressive Conservative government in January 1991 as part of wide-ranging tax reforms.

While it was generally welcomed by the business community, the GST has turned out to be a headache for politicians of all stripes.

Consumers' dislike of the GST, which replaced a less visible manufacturers sales tax, contributed to the downfall of the Conservatives in the 1993 poll.

The Liberals' election manifesto included a pledge to replace the GST with a "fairer" tax.

Ms Copps, who is also the heritage minister in charge of cultural policy, vowed in the run-up to the 1993 general election that she would resign if her party failed to replace the unpopular value added tax.

However, numerous efforts to find an alternative have proved fruitless.

Mr Paul Martin, finance minister, finally acknowledged last week that, after examining at least 20 other options, the government made a mistake "in thinking we could bring in a completely different tax without undue economic distortion and within a reasonable time period".

Ms Copps, who has a reputation for being outspoken, initially resisted calls to stick to her promise to resign.

She said last week that "when you're on the campaign trail, you get excited and sometimes you shoot from the hip".

However, her excuses only fuelled public protests. The Globe and Mail newspaper reprinted her quotes every day this week on its editorial page under the headline "Resign". Ms Copps said yesterday that she would contest the forthcoming by-election in her southern Ontario constituency.

Another Liberal MP was ejected from the party caucus last week after voting against the federal budget on the grounds that it failed to take action on the GST.

Faced with the difficulty of replacing the GST, the government has prodded the 10 provinces to blend their disparate sales taxes with it to create a uniform nationwide 15 per cent levy.

Quebec has already harmonised its sales tax with the GST, and Mr Martin announced last week that three small Atlantic provinces would come into the fold next year. The government has agreed to pay the three Atlantic provinces C$1bn (US$734m) over the next four years to compensate for lost revenues as they align their sales tax systems with the GST.

But most other provinces remain wary of being tarred with the GST brush.

While the furore over Ms Copps' promise has embarrassed the Liberals, her resignation is likely to contain the political damage to prime minister Jean Chrétien. Ms Copps' influence on overall government policy has been limited, despite her senior position in the cabinet.

However, the government's climbdown over the GST is an indication that the second half of the Liberals' five-year mandate is likely to be more turbulent than their first two years in office.

Mr Chrétien also faces other difficult issues, notably Quebec separatism.

Mexico's workers march out of step

May Day shows up divide between party and unions, writes Leslie Crawford

Tens of thousands of rebel trade unionists staged their traditional May Day parade yesterday – in defiance of Mexico's pro-government labour leadership, heralding a split in the Confederation of Mexican Workers (CTM) which has sustained Mexico's ruling party for six decades.

University lecturers and electricians, telephone workers and civil servants, pilots and bus drivers, marched past the empty balcony of the 16th century National Palace, where Mexican presidents once lorded over a ceremony that reaffirmed the labour movement's unswerving loyalty to the Institutional Revolutionary Party (PRI).

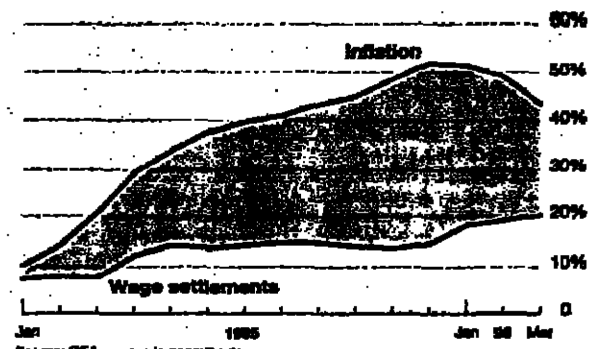
That loyalty is gone, shattered by the country's economic crisis and a labour leadership discredited by its close ties to the government.

For the second year in a row, Mr Fidel Velazquez, the 96-year-old patriarch who has led the CTM for more than half a century, decreed that the official labour movement would not march on May 1. Wishing to spare President Ernesto Zedillo the full blast of labour discontent, Mr Velazquez chose to stage a smaller, well-behaved event indoors, in which he and Mr Zedillo repeated the tired slogans of the 1910 Mexican Revolution.

There were no May Day marches last year, as most labour unions, reeling from the shock of the devaluation of the peso, chose to rally around "Don Fidel", as the Mexican patriarch is respectfully known.

At work in Mexico: the wage/inflation gap

Patriarchal union leader Fidel Velazquez: seeking to shield the president



Source: GEA economic consultants

This year, however, Mexico's largest trade unions have broken away from the CTM fold. With the recession continuing to bite into jobs and real wages, with pay settlements averaging only half the rate of inflation, the rebel unions believe it is time to end the labour movement's historic allegiance to the government.

The rebel unionists, led by Mr Francisco Hernández Juárez, the telephone workers' leader, have been threatened with expulsion from the Labour Congress, an umbrella group which unites the CTM and smaller pro-government labour federations. Earlier this year, Mr Hernández Juárez launched the "Forum for a New Trade Unionism", which was joined by electricians, pilots, teachers, transport workers, social security unions, bank employees and some car industry unions.

The Forum wants a new Labour Code to emancipate Mexico's labour movement from the tutelary authority of government. At present, all union elections must be endorsed by the labour ministry, while "independent" trade unions find it almost impossible to obtain official registration. The government also has the power to declare whether strikes are legal or not.

The Forum advocates freedom of association, against the present practice of the closed shop. It wants to clean out corruption within its own unions, and abolish the ties of patronage which bond union bosses to the PRI government. Loyal labour leaders are often rewarded with governorships, senate seats and lucrative government posts. And in the state sector, they grow rich by auctioning jobs and running their own private businesses, which are allowed to bid for public contracts.

> With the recession continuing to bite into jobs and real wages, rebel unions believe it is time to end the labour movement's historic allegiance to the government

"Mexico's labour movement was designed for a country which no longer exists," says Mr Hernández Juárez. "It is too subservient [to government], and too reliant on corporatist structures. We have to change with the rest of the country."

His decision to lead the May Day parade represents a de facto split within the Labour Congress, even if no formal expulsions take place. And although Mr Hernández Juárez denies it, it is only a question of time before he takes his followers into a new confederation that will rival the CTM.

A period of labour strife is expected to follow.

"The most immediate consequence of a split in the labour movement will be a wave of strike action, as rival labour leaders wrestle for power," predicts Mr Juan Millán, a CTM leader who was appointed secretary-general of the PRI last year.

The split worries the government, which has relied on Don Fidel to keep a lid on labour unrest in times of crisis.

But Don Fidel's influence, has waned with his ailing health. He has lost two important political battles this year. He failed to persuade the government to index wages to inflation, or to prevent price increases in basic foodstuffs. In April, when the minimum wage was raised by 12 per cent to 22 pesos ($2.90) a day, government-controlled prices for milk and maize tortillas were increased by 30 and 27 per cent respectively.

Don Fidel's refusal to designate an heir-apparent has compounded the disarray in the labour movement. He is only due to step down in 1998, when his current six-year term expires. But his frequent hospitalisations have led many to believe he will die in office.

His departure one way or the other will create a vacuum in the political system. "Don Fidel's immense moral authority has kept the labour movement together," Mr Millán says. "He is a phenomenon that will not be repeated."

Neither are there clear rules to chose Don Fidel's successor, a factor which will intensify the struggle for control over the CTM and its 5m members.

In theory, three deputies, aged 88, 77 and 61, stand in the line of succession, but they form part of the gerontocracy which is destined to expire with Don Fidel.

Mr Millán, who is considered the CTM's chief ideologist and is 53, says he is "too young" to be considered for the job.

The government is expected to play a mediating role in the succession, in the hope of perpetuating traditional arrangements.

There are signs, however, that some unions are not prepared to be as docile as in the past. The teachers' union is threatening to strike in May, while a partial stoppage of road haulage operators, who transport 80 per cent of Mexico's internal trade and almost all overland exports to the US, began on Monday.

Elsewhere, the vociferous union of petrochemical workers is standing in the way of the privatisation of state-owned petrochemical plants, writing angry letters to every embassy in Mexico City to warn off foreign investors. Without the co-operation of Mexico's labour movement, the task of introducing further economic reforms will be more of an uphill struggle for the government.

Chile union confederation leadership row flares

By Imogen Mark in Santiago

May Day celebrations in Chile yesterday were overshadowed by a dispute between the Socialist and Christian Democrat contenders for the leadership of the CUT union confederation.

The Christian Democrats lost the presidency of the CUT executive committee last week after holding it for more than a decade, even though their candidate, Ms Maria Rozas, won the largest number of delegates in the elections in mid-April.

Mr Roberto Alarcon, the Socialist candidate, was elected instead with the support of Communist party delegates.

Ms Rozas and the other Christian Democrat unionists are now refusing to take part in the new executive unless there is an agreement at least to share the presidency.

The outright winners in the new CUT are the Communists, who saw their share of the vote increase by almost 50 per cent to bring them in third with 13 seats, after the Socialists, with 15 seats, and the Christian Democrats with 16.

The Communists, who are outside the government coalition in which Christian Democrats and Socialists are the main partners, have been gaining strength in the unions in the past couple of years at the expense of the government parties.

They now control the two biggest unions, the teachers and the public health workers, who are the mainstay of the CUT.

For the government, it will mean a tougher relationship with a more hostile labour organisation.

The CUT represents only about half the unionised workforce, which in turn is only 15 per cent of the 5m workforce. However, it has a symbolic importance as a spokesman for the labour movement which the government until now has helped to maintain.

However, a sign of the new relationship came this week when the government announced it would not be consulting with the CUT, as it has always done before, on the annual increase of the minimum wage.

Air force to withdraw from Germany

By Bernard Gray, Defence Correspondent

The Royal Air Force is to leave Germany, ending a presence on the mainland of Europe which has lasted since the end of the second world war. The withdrawal marks a further decline in the level of foreign forces in Germany and another stage in the transformation of Nato from central European cold war warrior to mobile crisis reaction force.

Under the plan, announced in the annual UK defence white paper yesterday, the last British air base in Germany, RAF Brüggen, will close in 2002. Its four Tornado GR1 strike fighter squadrons will move to bases in Britain.

The last British presence in Germany will be provided by the army which has 24,000 troops in one armoured division and an artillery brigade.

Mr Michael Portillo, the defence secretary, insisted that the RAF's departure was not a lessening of Britain's commitment to Nato, and that the same aircraft would be available from Britain for Nato operations.

However, he said that Britain had to react to the changed strategic circumstances, and that basing the aircraft in the UK would produce savings estimated at £25m ($37.75m) a year.

Mr Portillo added that the RAF has had problems training in Germany since the fall of the Berlin Wall. In 1990 Germany curtailed low flying, which meant that the RAF Tornados stationed there had to cross the North Sea to Scotland to train.

At its peak in 1985 Britain had 12,000 RAF personnel in Germany on four bases with over 120 combat aircraft.

Britain's total presence in Germany will have fallen from a peak of 71,000 a decade ago to just more than 20,000 by the turn of the century. This mirrors the withdrawal of other Nato forces with the US cutting its troop numbers from 300,000 to under 100,000 over the same period.

Nato planners say that with Russia no longer a threat, Nato must adapt to respond to more varied crises such as the invasion of Kuwait and the war in Bosnia. It has established a Rapid Reaction Corps, run by the UK, which was, for example, given the job of running the ground forces in Bosnia.

Nato is also working on the idea of Combined Joint Task Forces, which would allow some Nato members to use alliance equipment without all of Nato's members becoming involved.

The cold war organisation is evolving in other ways too. France is moving closer to rejoining the Nato military structures and many central and eastern European countries wish to join the alliance.

Any expansion of Nato is likely to change the nature of the alliance further and mean that it will have to be increasingly flexible if it is to survive.

Minister urges US to open defence markets

By Bernard Gray, Defence Correspondent

Mr Michael Portillo, the defence secretary, urged the US to open its markets to European defence equipment if Britain was to continue to resist continental calls for US equipment to be excluded from Europe.

Introducing the annual defence white paper Mr Portillo emphasised the amount of equipment Britain had bought from the US in the past two years. The UK has spent £2.5bn ($3.8bn) on 67 Apache tank-busting helicopters, almost £1bn on 25 C-130J Hercules transport aircraft, and has bought 14 Chinook heavy-lift transport helicopters, Tomahawk cruise missiles and Paveway III laser guided bombs, all from the US.

If the UK was to continue to allow the US equal access to defence equipment competitions in future, the Pentagon must "operate a two-way street", insisted Mr Portillo.

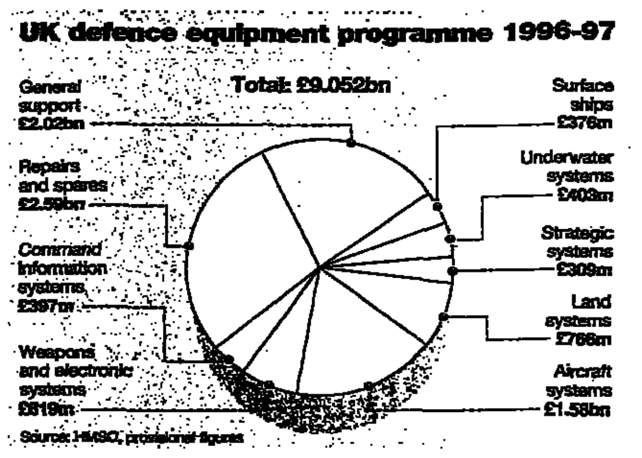
The UK is pressing the US to buy the BAe-Hughes Asraam short range air-to-air missile, the GEC-Marconi Tiald aircraft-mounted laser bomb aimer, the Shorts StarStreak high-velocity missile and field guns from Royal Ordnance or VSEL.

Mr Paul Kaminski, the Pentagon undersecretary for acquisition, has commissioned studies to determine which European programmes the US might consider.

However, Mr James Arbuthnot, the UK procurement minister, dismissed the idea that such warnings meant that the UK would automatically buy European or British in its procurement competitions. "We are interested in the best equipment for our forces at the best value for money, and we will make our decisions on the basis of all the factors, of which industrial concerns is one component," he said.

All of those competitions seem to remain on course, according to the white paper published yesterday and most have strong US as well as European contenders.

Mr Arbuthnot confirmed that the MoD was likely to decide on a £2.5bn replacement for the Nimrod maritime patrol aircraft by the summer. Two programmes for £650m of air-launched cruise missiles and £700m of air-launched anti-tank missiles are also likely to be decided before parliament rises in July. A third programme for £800m of long range missiles for the Eurofighter is likely to be decided early next year.



Mr Portillo stressed that co-operation with other European countries was increasing. Difficulties between Britain and Germany over the share of work on the four-nation £35bn Eurofighter project have been resolved, and the MoD expects to place contracts for the Eurofighter production tooling shortly. The UK has also teamed with France and Italy to develop a new air-defence frigate in a programme worth about £7bn. Agreement for the UK to work with France and Germany on a new "battlefield taxi" would lead to the UK joining the nascent Franco-German arms agency.

However, the white paper said that the UK was working towards rejoining the programme for the Future Large Aircraft European transporter, but with continental commitment weakening, no date had been set.

Picture of stagnating industry grows

By Graham Bowley, Economics Staff

Britain's manufacturers yesterday reported the first fall in factory output for 3½ years last month as companies suffered the biggest decline in new orders since September 1992.

The latest survey of industry by the Chartered Institute of Purchasing & Supply added to the gloom surrounding British manufacturing, prompting further speculation in the City of London that interest rates might fall again soon.

However, on the foreign exchanges, the pound fell to a two-year low against the dollar, due mainly to anxiety ahead of today's local elections in which the government is expected to suffer heavy losses. The pound closed in London at $1.497 against the dollar and at DM2.295 against the D-Mark.

Analysts believe the chancellor of the exchequer will now be under intense pressure to cut interest rates to engineer faster growth and restore the government's standing in the opinion polls.

The institute's measure of price pressures fell to the lowest level since the survey began in 1991 as manufacturers cut prices for the sixth consecutive month.

Mr Alex Garrard, UK economist at UBS, said: "The chancellor now has plenty of ammunition to push for a further rate cut, with widespread losses expected in the local elections fuelling backbench pressure on the chancellor to deliver." One glimmer of light was provided by demand for consumer goods, which remained buoyant – causing a rise in output in the consumer goods sector.

But this was more than offset by declines in orders for investment and intermediate goods in both the home market and those outside the UK.

This was another stark illustration of the widening gulf between the consumer side of the economy, where activity appears to be strengthening, and industry, which seems to be stagnating.

Separate figures yesterday from the Bank of England provided more evidence of rising consumer demand. Net consumer borrowing grew by a seasonally adjusted £700m ($1.01bn) in March – more than the City had expected and consistent with steady growth in consumer demand.

The institute's overall index of manufacturing activity – which collates data on stocks, employment, output, delivery times and orders from purchasing managers at 310 companies across the UK – was a seasonally adjusted 48.3 last month compared with 49.4 in March. A reading below 50 indicates a contraction in activity.

This was the third month in a row activity has declined. Mr Peter Thomson, the institute's director-general, said there had now been no growth in manufacturing for nine months.

He said he was "encouraged" by the pick up in the consumer sector but that the government would now find it "very difficult to defend its upbeat growth forecasts for this year".

The buoyancy of the consumer sector meant factories took on more staff for the first time in four months although companies making intermediate and investment goods continued to shed jobs.

UK NEWS DIGEST

Euro'96 ticket sales shortfall

Almost a quarter of the tickets for Euro 96, the European Championship football tournament have yet to be sold, just over a month before the competition starts.

The championship, to be held in eight English cities in June, is the biggest sporting event in the UK since the 1966 World Cup in 1966. But interest is so low that tickets are still available for the quarter and semi final games at Wembley, and for Italy's three group games. The executive said that between 1m and 1.1m tickets have been sold from a total of nearly 1.4m.

The shortfall has occurred partly because English football fans are busy following the battle for the domestic league title.

Also, many of the 16 participating teams are bringing few fans and will attract few locals. None of the five eastern European sides – Croatia, Russia, Bulgaria, the Czech Republic and Romania – have taken up their quota of 7,000 tickets per match. "That was expected," the FA said. Croatia has taken just 2,000 tickets in total for its three group matches.

Denmark, with 12,000 tickets per match, and Turkey, with 11,000, have exceeded their quotas, taking more than soccer giants Italy and Germany. The FA also let Switzerland exceed its quota. *Simon Kuper, London*

Accounting proposals floated

The Accounting Standards Board yesterday issued discussion papers on two issues – earnings per share and segmental reporting – in an effort to strengthen its hand in forthcoming discussions at an international level. The board wants to gather UK views on the two issues which are the subject of draft proposals from the International Accounting Standards Committee and the US Financial Accounting Standards Board.

Sir David Tweedie, chairman of the board, said that "comments we receive should help us reflect UK views in international discussions and... determine whether the current UK requirements should be amended". The issues in the earnings per share paper are the calculation of diluted earnings per share and disclosure requirements. The paper on segmental reporting looks at the differences between the US and IASC approach. *By Jim Kelly, Accountancy Correspondent*

Auditors offer liability deal

Auditors yesterday offered to give a wider range of assurances about companies – including whether material fraud might be present – if the government would agree to limit auditors' legal liability. The Institute of Chartered Accountants in England and Wales said yesterday the idea was "an offer on the table" for the Department of Trade and Industry.

In return for the assurances to shareholders, auditors want the DTI to reform the law of joint and several liability, for a wide range of professions, and replace it with a form of proportional liability. Accountants, and many other professionals, complain that under the existing law they can end up paying all the damages in a case when others, often uninsured, are more to blame. *Jim Kelly*

Higher profits forecast

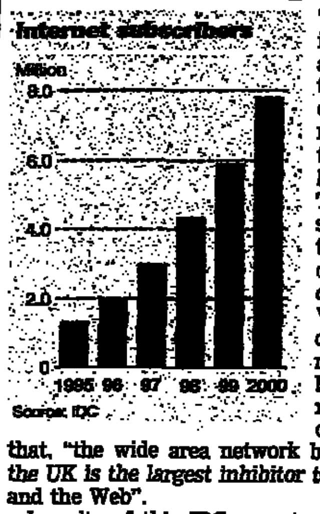
LLOYD'S

Chatset, the independent Lloyd's analyst, yesterday said it expected the insurance market to report a profit of about £1.05bn when results for 1993 are unveiled later this year under Lloyd's three-year accounting system. The figure was higher than earlier Chatset forecasts and highlighted the turnaround in Lloyd's profitability after losses of more than £8bn in recent years.

Separately, insurance analysts at Hoare Govett said the recent erosion of underwriting margins had been less than feared and they were expecting global pre-tax profits of £747m for 1995 and £471m in 1996. But Christie Brockbank Shipton (CBS), a Lloyd's agency, warned marine insurers had made large cuts in premium rates and could see losses this year.

Meanwhile, CBS is close to buying Chatset in a deal which values Chatset at about £100,000. *By Ralph Atkins, Insurance Correspondent*

Internet take-up rate steadies



The number of Internet users in the UK will rise from 1.3m at the end of 1995 to 7.7m by the end of the decade in spite of slowing subscriber growth rates, according to International Data Corporation, the high technology consultancy. The IDC report says subscriber growth will continue to be driven by the attractions of electronic mail, information content on the World Wide Web and connecting internal corporate networks – intranets. Web usage is expected to be limited for some time, mainly because of capacity constraints, and IDC suggests that, "the wide area network bottleneck/capacity concern in the UK is the largest inhibitor to rapid uptake of the Internet and the Web".

In spite of this IDC expects the markets for Internet and intranet-related software and services to grow rapidly, at 36 per cent and 70 per cent compound annual growth rates respectively during the next five years, albeit from a small base.

Meanwhile Unipalm Pipex, one of the leading UK-based Internet access providers, is launching an upgraded service today which will provide its personal subscribers with what it claims is the world's fastest dial-up access to the Internet using a standard telephone line. *Paul Talyor, London*

Tourist numbers soar

The UK expects to welcome a record 25m visitors to its shores in 1996 after seeing a 6 per cent jump in numbers in January and February. The UK's popularity has been enhanced by sterling weakness, the opening of the Channel Tunnel and effective marketing.

There were 24.0m visitors to the UK in the twelve months to the end of February, up 12 per cent rise on the previous 12 months, according to National Statistics. The figure was swelled by a 9 per cent rise in American visitors, a 12 per cent increase in West European visitors, and a 12 per cent jump in visitors from the rest of the world. UK visits overseas rose 4 per cent to 42.0m in the twelve months to the end of February. *By Christopher Brown-Humes*

Share price expectation for Railtrack announced

By Charles Batchelor, Transport Correspondent

While Mr Robert Horton, the chairman of Railtrack, was in Boston yesterday drumming up interest among US institutions for the company's sale on May 20, the government announced that it expected the company to float on the stock market for between £1.75bn ($2.64bn) and £1.95bn.

Shares in the company, which has taken over British Rail's track, stations and signalling systems, were yesterday priced at between 340p and 380p for UK investors, roughly in line with expectations. Large institutions and international investors will be required to pay an additional 10p per share. But the final price, which will depend on the amount of investor interest, will not be decided until just before the listing of the company's shares on the London stock market.

The government opted for a cautious valuation of the company's shares in spite of a last-minute flood of registrations from private UK investors keen to qualify for the substantial discounts and bonuses which are on offer. A total of 1.9m small investors have registered with a "share shop".

City of London analysts said the valuation range announced by Sir George Young, transport secretary, represented fair value for a privatisation which has aroused such criticism from the opposition political parties and the public at large. But the pricing was described as "a cynical misuse of national resources," by Ms Clare Short, the opposition Labour party's transport spokeswoman.

Mr David Myrddin-Evans, an analyst at Kleinwort Benson Securities, said: "The share has been heavily discounted because of political worries... the valuation is in line with the City's expectations although the yield is at the top end for the utilities sector."

Setting the Railtrack price range marks another step towards completing the controversial sell-off of British Rail. Railtrack will issue 500m shares although up to 65m will be held back to allow stock market fluctuations to be smoothed out in the first month of trading.

Lex, Page 16

Investment in chemicals delayed

By Jenny Luesby in London

Increased economic uncertainty prompted chemical companies to delay up to a fifth of their investment in the UK last year, but most intend to catch up this year, triggering a 14 per cent increase in capital spending to £2.35bn ($3.54bn).

Most of the increase will go into bulk chemical production in the north-east, where the Department of Trade and Industry is promoting Teesside as Europe's largest petrochemicals zone, in competition with the current leader, Rotterdam.

The Teesside initiative has prompted nearly £500m of investment announcements since its launch last year. Most of these will be expansions of existing plants, including a £200m investment by DuPont and £155m by Imperial Chemical Industries. For the chemical industry as a whole, UK investment rose by 2.8 per cent last year, to £1.99bn. This was the first rise since 1991.

But companies surveyed by the Chemicals Industries Association – responsible for more than half the investment – expected to invest 20 per cent more in the UK than in 1994, but invested 2.5 per cent less.

They blamed industry restructuring – which has seen many companies in the sector change ownership – and increased economic uncertainty for this shortfall, which is far greater than normal.

However, they expected authorisations for future investment in the UK to jump by 17 per cent this year.

MPs are accused of 'childish xenophobia'

By John Kampfner at Westminster

A concerted campaign to defend the prime minister's approach to Europe and his leadership style intensified yesterday with an attack by Mr Malcolm Rifkind, foreign secretary, on the "childish xenophobia" of some in the governing Conservative party.

Mr Rifkind's intervention, which came a day after an endorsement of the European ideal by Mr Michael Heseltine, the deputy prime minister, was seen as an attempt to counter the calls for retribution against the European Union over the beef crisis.

The government's inability to secure a lifting of the ban on UK beef led to a renewed bout of anti-European fever in the House of Commons, as several Tory MPs continued to fuel speculation about Mr. John Major's hold on power.

But both Mr Heseltine and Mr John Redwood, the former Welsh secretary who contested the leadership last year, gave categorical statements that they were fully committed to fighting the general election under Mr Major.

Mr Rifkind, who like Mr Major has in recent months made limited gestures to Eurosceptics, called for an end to the European debate being "conducted at the extreme". Britain, he suggested, could be among a majority of member states not to join a single currency if it came into being in 1999.

"The concept of the EU as a tightly-knit group of countries all submitting to the same degree of integration and supra-national authority is unsustainable for the foreseeable future," Mr Rifkind told the European Policy Forum.

Meanwhile Mr Kenneth Clarke, the chancellor, said yesterday in evidence to the Treasury select committee, that opponents of a single European currency had tried the build the idea up into a "giant political project" for their own purposes.

Mr Clarke stuck scrupulously to the government's agreed policy on the single currency saying it was too early to decide whether Britain should join and that he was content with the idea of a referendum.

But the chancellor left no doubt that he was sympathetic to the idea of European monetary union. While conceding that opponents of a single currency were not isolationist in intent, he said they might be "isolationist in consequence". Whether the UK joined or not, Britain should aim to be in the "premier league" of countries that were eligible to do so, he added.

Labour pledge to HK minorities

By John Ridding in Hong Kong

A Labour government would give Hong Kong's ethnic minorities full right of abode in Britain if they were stateless after the territory returned to China next year, Mr Robin Cook, the shadow foreign secretary said yesterday.

Mr Cook said the Conservative government's stance that members of minority groups would be given right of abode if they came under pressure to leave Hong Kong was inadequate. He estimated the numbers concerned at between 3,000 and 5,000.

On most issues relating to Hong Kong, however, Mr Cook struck a similar stand to the government. "We want to avoid making Hong Kong a partisan matter within British politics," he said, adding that this would damage Britain's interests in dealing with China.

Relations between Britain and China have come under serious strain in recent weeks because of Beijing's plan to replace the territory's elected legislature. Mr Cook pledged that a Labour government would resist such a move. Asked whether it would take the matter to the United Nations and the International Court of Justice, the shadow foreign secretary said that all options would be available.

Mr Cook said there was little prospect that a Labour government would seek to replace Mr Chris Patten, the governor of Hong Kong, who has been strongly criticised by Beijing for implementing democratic reforms. Mr Cook said he would take "an awful lot of persuading" of the need to replace the governor.

In addition to the right of abode for ethnic minorities, Mr Cook said that he would write to Mr John Major, the British prime minister, urging him to bring forward legislation granting citizenship to war widows in Hong Kong. During a visit to Hong Kong in March, Mr Major said that this would be the subject of a private member's bill. The Hong Kong government estimates there are 54 war widows in the territory.

Machine tools factory considered

By Peter Marsh in London

Amada, the Japanese company that is the world's biggest machine tool builder, is considering setting up a UK manufacturing operation.

Mr Nobuyuki Ueda, Amada's president, said the company was "studying the possibilities" of a UK plant to add to its existing European manufacturing operation in France.

Mr Ueda, interviewed in Birmingham at the machine tool business's annual exhibition, would give no further details.

Assuming Amada gave the go-ahead to a plant, it would be a further fillip for the UK machine industry, which is in buoyant mood after a bleak period in the early 1990s recession when order books and output fell steeply.

If the plant went ahead it would fit in with trends in the industry of setting up factories close to main customers.

There are strong incentives for Japanese machine tool companies to set up European production operations: the strong yen, which makes exporting from Japan to Europe unattractive, and the high costs of adapting Japanese-made machinery to meet EU safety regulations.

Industry sources said that if Amada decided on a plant, which would add to its existing sales operation in Kidderminster, western England, it would probably involve spending of at least £10m and might create "several hundred" manufacturing jobs.

Political tensions heightened by beef negotiations

By George Parker at Westminster

Mr Douglas Hogg, agriculture minister, was subjected to scarcely concealed contempt from many MPs in the governing Conservative party yesterday, when he reported to the House of Commons his latest attempts to persuade the European Union to lift the ban on British beef exports.

Euro-sceptic Tory MPs laughed mockingly when Mr Hogg insisted that his fellow EU agriculture ministers "explicitly recognise that the ban is temporary".

Mr Hogg's allies insist that he did make solid progress at the EU agriculture council in Luxembourg, but his inability to secure an early lifting of the ban has fuelled the war raging in the Conservative party over Europe.

Mr Hogg, who is anxious to take the political heat out of the beef crisis, insisted his policy of "persuasion and negotiation" was the best way to achieve a lifting of the ban.

He said the EU had agreed in principle to a step-by-step lifting of the ban, possibly starting with an easing of restrictions on tallow, gelatine and semen exports.

He said he would consider carefully EU suggestions of a selective slaughter policy that went wider than the 42,000 cattle he has proposed, but not much wider. "The scale of any measure finally put in place will be very much on the lines I have already indicated to the House," he said.

Tory right-wingers packed the chamber to air their anger at the continuing beef ban, and their derisive laughter during Mr Hogg's statement reflected their growing confidence.

Mr Nicholas Budgen, Tory MP for Wolverhampton South West, warned Mr Hogg that the Commons would not approve any EU demands for a wider cull of apparently healthy cattle, while Mr Nicholas Winterton, MP for Macclesfield, claimed the European Union was "out to destroy" the British cattle processing and distribution industry.

Mr Bill Cash, MP for Stafford, called for the suspension of Britain's payments to Brussels while the senior right-winger, Sir Ivan Lawrence, said the government should ban imports of French and German beef to compensate for the lost exports.

Consumer organisations were shocked yesterday by the government's discovery that cattle feed continues to be contaminated with sheep remains eight years after it was banned in an effort to eliminate BSE, write Deborah Hargreaves and Caroline Southey.

The Ministry of Agriculture revealed this week that of 834 cattle feed samples taken at mills in February and March, three were contaminated with sheep remains and five with pig material.

The use of sheep remains in feed for cattle was banned in 1988 because it was believed that scrapie – a disease in sheep similar to BSE – could be transmitted to cattle. Pig carcases were banned from cattle feed in 1994.

A ministry official said that a test for detecting animal protein in feed had only been developed in the past year and that feed at farms and feed mills was being regularly tested.

"We were disappointed with these findings, but those mills where it was found will now be monitored on a weekly basis," he said.

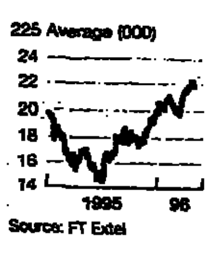
FINANCIAL TIMES
COMPANIES & MARKETS
Thursday May 2 1996

IN BRIEF

Motorola team calls for EC Irish probe

Persona, a consortium involving Motorola of the US, is to complain to the European Commission over the Irish government's handling of the competition for Ireland's second GSM mobile phone licence. Page 19

Nikkei retreats below 22,000 level



Tokyo's Nikkei 225 index declined 1 per cent, falling below the 22,000 level for the first time in seven trading days. The Nikkei slipped 226.29 to 21,815.01 as uncertainty over the course of the yen weighed on investor sentiment. Bargain hunting by domestic institutions provided some support for the index, but their purchases remained limited ahead of the five-day weekend starting on Friday. Page 36

The rise and fall of the AIOC empire
The Russian metals business in the early 1990s offered a modern equivalent of America's wild west, and some of the most successful cowboys worked for AIOC, a New York-based commodities group. But more than any other company, the rise and fall of AIOC demonstrated the opportunities and lethal pitfalls of the Russian metals trading market. Page 18

Pacific BBA bids A$275m for Azon
Pacific BBA, the Australian manufacturing group, launched a hostile A$275m (US$217m) bid for Azon, the former manufacturing division of the Boral building materials group, which was floated off on the stock market three years ago. Page 21

Banco Santander to buy out partner in CCH
Banco Santander, the Spanish banking group, is to pay DM300m ($195.6m) to buy out the 50 per cent stake held by its partner, Royal Bank of Scotland, in CC-Holding, parent company of Germany's CC-Bank consumer finance group. Page 22

BAT rises to £600m in first quarter
BAT Industries of the UK reported underlying first-quarter profit growth of 10 per cent with its tobacco businesses performing slightly worse than forecast and its financial services marginally better. Pre-tax profits including an exceptional gain were up 16 per cent to £600m ($900m). Page 23

Mergers lift Sons of Gwalia into gold index
Only 14 months ago Sons of Gwalia was – in production terms at least – one of the also-rans among Australian gold miners. But three quick deals since then have propelled it into fifth place among Australian gold producers and earned it a place in the Financial Times Gold Mines Index from tomorrow. Page 25

Companies in this issue

Market Statistics

Chief price changes yesterday

NEW YORK ($)			
Rises			
Boston Scnce	45⅛	+	2
Newpark RSC	33⅞	+	1⅝
Vertone	44½	+	2⅛
Falls			
Dmond Offshre	47⅜	–	2⅝
IP Timberland	22⅛	–	2⅞
Kang Cole Prd	18½	–	1⅛
LONDON (Pence)			
Rises			
Admiral	1300	+	57
Central Mtr	85	+	15
Holders Tech	185	+	21
MMT Computing	458	+	86
Falls			
Courtaulds	373	–	45
Sage Grp	435	–	24
TORONTO (C$)			
Rises			
Imax	47.5	+	5.8
Nelvana	23.0	+	1.75
Scorpion Mint	11.7	+	1.5
Falls			
Arbor Mem A	21.0	–	2.0
Alphanet Tel	20.0	–	1.0
Gen Minerals	12.35	–	1.15
TOKYO (Yen)			
Rises			
Calsonic	914	+	19
Ihara Chem	970	+	29
Janome	443	+	27
Falls			
Calpis Food	965	–	35
NTN	746	–	22
Tokyu	830	–	23
HONG KONG (HK$)			
Rises			
Dongfang Elec	2.15	+	0.25
Luoyang Glass	2.25	+	0.27
Tsingtao Brew	2.4	+	0.27
Falls			
Manhattan	4.25	–	0.35
Nanyang Hlds	9.35	–	0.25
New Asia A	25.2	–	0.70

Frankfurt, Paris and Bangkok closed. New York and Toronto prices at 12.30pm.

BA scraps plan for 60 regional jets

By Michael Skapinker, Aerospace Correspondent

British Airways has shelved plans to spend more than $1bn on 60 regional jets. The purchase would have been the airline's biggest order for five years.

BA said yesterday that it had told leading aircraft manufacturers to stop work on their bids for the order. The airline said: "We've decided to put the tender process on hold to give us time to evaluate our regional operations."

BA asked five manufacturers to submit bids in January. It said it was interested in making 30 firm orders for regional jets and taking an additional 30 options. The five manufacturers asked to submit bids were Boeing and McDonnell Douglas of the US, British Aerospace, Fokker of the Netherlands, which has since collapsed, and Airbus Industrie, the European consortium.

The regional jet purchase would have been the largest made by BA since August 1991, when it ordered 15 Boeing 777s, with options on a further 15, and 24 Boeing 747-400s.

BA said yesterday it had decided that the planned regional jet purchase did not make economic sense. "We made it clear that to fund such a large purchase, changes would be required in our regional cost base. That's taking time to complete."

Aerospace industry executives believe BA's change of mind is a result of a re-evaluation of the airline's priorities by Mr Robert Ayling, who took over as chief executive at the start of the year.

BA has continued to express an interest, however, in buying a new large aircraft, capable of carrying more than 500 passengers.

Boeing hopes to begin work on a 500-seat aircraft by the end of the year. Airbus says it hopes to announce firm plans for a 550-seater by the end of 1997.

When BA invited the five manufacturers to bid for the regional jet order, it said it wanted aircraft in the 80, 100 and 120-seat category to replace Boeing 737-200s on UK domestic routes and on services to continental Europe from Birmingham, Edinburgh, Glasgow and Manchester.

BA also said some of the aircraft would be used by Deutsche BA, the German carrier in which it has a 49 per cent stake. Although Deutsche BA has won passengers away from Lufthansa, Germany's main carrier, it runs at a loss.

The regional aircraft order had been seen by several manufacturers as an opportunity to break Boeing's dominance as a supplier to BA. The carrier has never bought an Airbus aircraft, although its fleet contains 10 Airbus A320s which were ordered by British Caledonian before BA acquired the airline in 1987.

Lex, Page 16

PepsiCo matches Coca-Cola stock split

By Richard Tomkins in New York

PepsiCo, the US snack and soft drinks group, yesterday mirrored its US rival Coca-Cola by announcing a two-for-one stock split, doubling the number of authorised shares to 3.6bn.

Emphasising the rivalry between the two, PepsiCo said trading in the split stock would begin on May 13 – the same date fixed by Coca-Cola for the start of trading in its split stock.

The move, announced at PepsiCo's annual meeting, follows Tuesday's publication of its first-quarter results, showing net income 23 per cent higher at $394m. Those figures lifted PepsiCo's shares $2⅛ to $63¼, and yesterday they were up another $⅝ at $63⅞ in early trading.

In the US, stock splits are taken as a sign that companies are confident about their growth prospects, because they suggest that continuing increases in their share prices will put the cost of even a single share out of the reach of small investors.

Yesterday Mr Wayne Calloway, chairman, said: "PepsiCo's shareholders are clearly benefiting from the strength of all three of our businesses, and I'm confident our best years are still to come. The stock split will make it easier for individual investors to purchase shares."

PepsiCo also announced a 15 per cent rise in its quarterly dividend from 10 cents to 11.5 cents after the split.

At the end of last year Coca-Cola announced plans for a two-for-one stock split, increasing the number of authorised shares from 2.8bn to 5.6bn. It said the split was in keeping with its tradition of keeping its share price at a level convenient for large and small investors. Two months later it announced a 14 per cent rise in its quarterly dividend to 25 cents a share, pre-split.

Coca-Cola appears to have more of a reason to split its stock than PepsiCo because its price is higher. Both companies have seen big increases in their share prices recently. In early trading yesterday, Coca-Cola's price was up from $51⅞ at the beginning of last year to $81⅞, while PepsiCo's price had risen from $36⅞ to $63⅞ over the same period.

Coca-Cola's last three stock splits were a two-for-one splits in 1992 and 1990 and a three-for-one split in 1986. PepsiCo had three-for-one splits in 1990, 1986 and 1977.

Stena chief dismisses idea of merging with P&O

By Hugh Carnegy in Stockholm

Mr Bo Lerenius, chief executive of Stena Line, said yesterday the Swedish ferry operator was committed to remaining an independent carrier on the English Channel and was not interested in a merger with the UK's P&O to meet tough competition from Eurotunnel. "We have no intention of doing anything else but going on our own," he said.

Mr Lerenius was responding to news that P&O, the biggest ferry operator on the Channel, was set to seek permission from the Office of Fair Trading to be allowed to hold merger discussions with Stena. Ferry operators have been in a price-cutting battle with Eurotunnel, which has taken a share of more than 40 per cent of Channel traffic since it opened last year.

Mr Lerenius, speaking at Stena's base in Gothenburg, said his company would "of course" be willing to discuss changes in rules limiting co-operation by ferry companies on the Channel if the OFT reopened the issue in the light of Eurotunnel's impact.

The company has acknowledged the likelihood of rationalisation and said "the time might be right" to discuss the issue with the authorities. "If that came up we would talk to them," Mr Lerenius said. "But we are not interested in taking the initiative."

He said Stena, the world's biggest ferry operator, had had no recent contact with the OFT or P&O on the issue. Both ferry companies unsuccessfully sought a relaxation of channel competition rules three years ago in anticipation of Eurotunnel's opening.

Stena last month blamed competition from Eurotunnel for a 23 per cent increase in its losses in the first three months to SKr504m (£49m).

Mr Lerenius said Stena had recently increased its capacity on channel routes from three ships to five after scrapping a previous pooling arrangement it had with the French operator SNAT. "Our strategy is to go on by ourselves and *strengthen* capacity. We are taking market share," he said.

He said if Eurotunnel took 50 per cent of Channel traffic – and Channel traffic continued to grow – there would be 13m to 15m passengers a year available to ferry operators.

"That would still be the biggest ferry route in the world. We believe there will be room for two operators apart from the tunnel and we intend to be one of them," Mr Lerenius said.

There are five surface operators *on the Channel. Stena* operates four routes, but has 12 other ferry routes in northern Europe, making it less dependent on the channel than its competitors.

Ralph Atkins reports on plans to repeat a successful UK formula

Aiming for a direct hit on US insurance market

Like a Hollywood star scared of being typecast, Mr Peter Wood (right) – the nearest the UK insurance industry gets to a celebrity – just wants to be free.

Direct Line, the telephone-based insurer he founded 11 years ago, has transformed the private motor and household sectors – in the UK and increasingly overseas where others are mimicking his methods of selling direct to customers. Mr Wood has become a multi-millionaire.

But Mr Wood has become restless. Under his recently renegotiated contract, he can spend half his time on non-Direct Line business. Last week, he unveiled details of a separate US venture, Direct Response, in conjunction with business partner Mr Jim Stone, chairman of Plymouth Rock, a Boston-based insurer. They have raised $215m to launch the auto insurer which, like Direct Line, will cut out intermediaries and their commissions. The plan is to cover most states within five years.

There is an obvious motive to explore the $100bn US auto market. After explosive profits growth by Direct Line, now the UK's largest private motor insurer, figures next week for the six months to March are expected to show a turnround. Fierce price competition among UK insurers has eroded margins while exceptionally severe weather has pushed up claims, perhaps cutting first-half profits to virtually nothing.

Mr Wood denies losing affection, however. "I could never get fed up with Direct Line," he says. "It's my baby." Growth in motor and household has slowed and, although Direct Line will not cede market share, "this is not the best time to put the foot on the accelerator because people are writing business at stupid rates." But, Mr Wood says, if Direct Line is finding it hard, "there are lots of competitors and a lot of them are losing huge amounts of money". Moreover, Direct Line has expansion plans. The market for travel insurance is being tested and pet policies are being considered.

US private auto insurers

Top 10 Groups	Market share (%)
State Farm	22.2
Allstate	12.1
Farmers	6.2
Nationwide	3.7
USAA	3.5
Geico	2.0
Liberty Mutual	2.0
Prudential of America	1.6
Progressive	1.6
American Family	1.6
Total of Top 10	56.5
Total of Industry	100

Source: AM Best

Talks are in process on a possible German venture following the launch last year of Linea Directa Aseguradora. Direct Line is also looking to build telephone sales of other financial services products, such as mortgage and life assurance, to create what Mr Wood describes as "the building society of the future".

Mr Wood's restlessness stems not so much from the challenges Direct Line faces – more his determination to have control of his life. His is a director of Royal Bank of Scotland, Direct Line's parent, and a substantial shareholder.

Mr Wood says, "I own a third of 1 per cent of Royal Bank, a 'rounding error'. I don't absolutely control my own destiny... I don't want to find that somebody has turned up at St Andrew Square [Royal Bank's Edinburgh head office] and bought Royal Bank and is telling me what to do."

So Mr Wood has prepared his defences against the often rumoured possibility of Royal Bank being taken over. He has rights to buy out Privilege, a sister company to Direct Line which specialises in non-standard motorists. This, he says, could be built up to rival Direct Line.

Or, Mr Wood proposes: "If anyone came to buy Royal Bank, if there was any way they would sell me Direct Line at a reasonable cost, I would certainly consider raising the money."

The US venture would be another fall-back. Mr Wood plans to spend one week in four living in Boston (which, if he only spends half his time at Direct Line, still leaves opportunities for other projects).

He owns about 10 per cent of Direct Response; business partner Mr Jim Stone about 18 per cent. But the two will have control over most decisions and, if the company performs well, Mr Wood's stake would increase substantially. Softly-spoken and coy about his personal finances, there is a entrepreneurial twinkle in his eyes: "I can make between zero and a substantial amount of money."

It may not be easy. The US auto market is dominated by Allstate and State Farm, by no means laggards among insurers. Agents and other intermediaries already make use of telephone sales so the extra convenience Direct Response offers consumers might be limited.

Moreover, Mr Warren Buffett's Berkshire Hathaway investment group last year increased its investment in Geico, an insurer which already sells direct to customers – perhaps creating a *formidable opponent for Mr Wood.* At the same time, the US market is highly regulated. It will be hard to emulate Direct Line's ability to change premium rates rapidly and cut prices for the better risks.

Mr Wood is undaunted. "When I started Direct Line I took on all the giants of UK insurance." The US market, he points out, is huge and "direct" writers, including Geico, have only small market shares. "It is not as if I'm taking on Coca-Cola."

Direct Response will use Mr Wood's expertise in setting up low-cost operations; undercutting others by saving on building costs and agents' expenses. As for the regulatory system, Mr Stone is a former Massachusetts insurance commissioner who knows the system backwards.

Above all, Mr Wood is convinced successful insurance companies will be those closest to the customer. Insurers which try to appeal to brokers and agents, while also setting up direct operations "are caught between the devil and the deep blue sea... You are not in control of your own destiny which is what I always want to be."

Elektrowatt to place UK stake

By Christopher Price in London

Elektrowatt, the Swiss engineering and power group, is to place its 40 per cent holding in Eurodis Electron, the UK electronics components distributor, after failing to find a buyer for the stake.

It had hoped to sell the holding to a third party. A 17 per cent fall in Eurodis Electron's shares yesterday – down 49p at 233p – partly reflected the removal of the bid potential. A buyer would have had to mount an offer for the entire group. There was also a pessimistic trading statement from Eurodis, and at yesterday's share price the company was valued at £134m ($202m).

The failure to clinch a trade sale will come as a severe disappointment to Elektrowatt, which will have hoped to make up to £90m from the deal. The sale is part of a larger disposal programme put in place six months ago in order to help fund the SFr1.8bn ($1.5bn) takeover of Landis & Gyr, the Swiss electronics group.

However, analysts said the Swiss group would be lucky to realise £55m from the sale, which would have to be struck at a discount to the prevailing share price.

The third-quarter trading statement from Eurodis Electron yesterday said sales growth had slowed and would probably be 10 per cent, rather than the 15 per cent previously forecast for 1996. The company blamed competitive market conditions in Europe.

News of Elektrowatt's decision delighted Mr Robert Leigh, chairman of Eurodis Electron, who had been furious over the announcement by the Swiss group to sell its stake. The decision was taken in December, just five months after Elektrowatt had merged its electronics distribution business, Eurodis, with Electron House of the UK. Mr Leigh assumed the Swiss group was a long-term shareholder.

An unamed German group held three-way discussions with Elektrowatt and Eurodis Electron, but a price could not be agreed.

The Swiss headquarters of Eurodis are to be closed and Mr Rolf Thurnherr, the joint chief executive, is to leave the company. Mr Barry Charles will become the sole chief executive. Estimated cost savings from the rationalisation moves would eventually amount to £1.5m.

METALS TRADE IN THE FORMER SOVIET UNION

AIOC's dominance of the region's metals markets ended last month in bankruptcy proceedings. FT writers explain the causes of its collapse

The rise and fall of an empire built in Russia

Imagine the brash, self-styled "masters of the universe" who dominated Wall Street in the 1980s doing deals in an economy as free-wheeling as the wild west. Then you will have a fair impression of the Russian metals business in the early 1990s. The Russian metals sector became a modern-day Klondike for Soviet-era factory managers and their western trading partners.

More than any other company, the rise and fall of AIOC, a New York-based commodities trading group, demonstrated the opportunities and lethal pitfalls of the Russian metals trading market.

Some of the most successful "cowboys" worked for AIOC, owned and run by Mr Alan Clingman, a 36-year-old entrepreneur who says he made his *first fortune broking oil in his* native South Africa.

At the height of its success, AIOC became a dominant force in the former Soviet Union's metals sector. In May 1993, AIOC took over Swedish conglomerate Axel Johnson's raw materials trading subsidiary, creating a company which Mr Clingman claimed was the biggest independent US-based physical metals trading group, with an annual turnover of $1bn.

But after riding the highs of the Russian metals market for half a decade, AIOC suffered a series of setbacks last year, including the murder last September of one of its leading figures. This month it was forced into bankruptcy proceedings by disgruntled western creditors. The company also owes Russian banks a reported $35-$40m.

AIOC's rise began as the Soviet regime collapsed and its successor states began the long journey to a market economy. Trade in many commodities slipped out of the centralised control of bureaucrats in Moscow. But at the same time, a considerable gap remained between domestic and world prices. That difference made the metals trade a lucrative business.

Obtaining metal on the most favourable terms meant offering Soviet-era factory managers and government functionaries lavish inducements.

In 1994, one western metals trader bitterly complained that a rival company had provided each member of an official delegation visiting London from Kazakhstan with three female companions; he had only supplied one escort per Kazakh when he had entertained the group the night before. He feared he might lose the deal.

But there was also a darker side to the fight for a profitable share of the Russian metals trade. The metals business was seen as one of the most savage sectors in an already tough economy. Last year at least half a dozen businessmen involved in the Russian metals industry were assassinated.

One western metals trader complained that a rival company had provided each member of an official Kazakh delegation visiting London with three female companions; he had only supplied one escort when he had entertained the group the night before. He feared he might lose the deal

One of the victims was Mr Felix Lvov, the guiding spirit behind AIOC's Russian operation. Many observers say his murder last September acted as a catalyst for the company's collapse.

A native of Dnepropetrovsk, in Ukraine's industrial heartland, Mr Lvov began to do business deals in the 1980s, when most private enterprise was a crime in the eyes of the Soviet state.

Mr Lvov was a ubiquitous presence in AIOC's Moscow office and, according to several former employees, he was the linchpin of the company's Russian operations. Mr Lvov was particularly crucial to AIOC's ties with the Krasnoyarsk aluminium smelter, the second largest smelter in the world.

But when Mr Lvov was kidnapped, then shot and killed last September, AIOC immediately distanced itself from him.

Former employees and other industry sources say that shortly after Mr Lvov's murder, Mr Clingman circulated a memo which asserted that Mr Lvov had never been an AIOC employee, but had been only loosely affiliated with the company as an occasional outside consultant. In a recent interview, Mr Clingman described Mr Lvov as a mere "local partner".

According to former AIOC traders, Mr Clingman justified his actions as "a step that was necessary to save the lives of other people in the company". But both within and outside the company, Mr Clingman's reaction to the murder had painful consequences. On top of losing the profitable Krasnoyarsk business and Mr Lvov's priceless network of contacts throughout the former Soviet Union, his murder soured Mr Clingman's relationship with many other senior AIOC figures and tarnished the company's reputation in the industry.

"Clingman took a very ugly position – immediately after the death of Felix, he disowned him," says the head of a Russian metals trading firm based in Moscow. "The people of AIOC also felt wounded. It seemed like a betrayal."

People in the company also say that Mr Clingman's reaction to the murder embittered Mr Alexander Krasner, a Soviet emigré who was a part-owner of the company and had been Mr Clingman's partner from the outset. Mr Krasner, who helped AIOC penetrate the byzantine Russian market and was distantly related to Mr Lvov, left the company at the beginning of this year.

The loss of Mr Lvov and his web of contacts was compounded by the second big reason for AIOC's collapse: substantial trading losses. Some former AIOC employees allege that the company suffered losses of at least $13m trading metals on the London Metal Exchange in late 1995 and at the beginning of this year.

But other former employees and current AIOC officials say the company's biggest setback was a large trading loss in ferro-chrome, a raw material used in stainless steel production. According to an official AIOC press release, the company's loss on ferro-chrome, which is thought to be at least $22m, was triggered when Turkish chrome miners went on strike last summer and blocked deliveries of AIOC chrome ore cargoes for which the company said it had already paid.

"The delay in receipt of this ore forced AIOC to buy in ferro-chrome supplies at the height of the market to meet its contractual commitments to customers in the third quarter," the company said.

The difficulties were compounded in the fourth quarter of last year when AIOC received double quantities of ferro-chrome just as the market crashed.

AIOC's ferro-chrome business had already been damaged last May, when the Kazakh government transferred the management of the country's entire ferro-chrome industry to Japan Chrome, a member of the Transworld group and AIOC's fiercest rival in the metals trade in the former Soviet Union. The agreement allowed Japan Chrome to sever most pre-existing contracts unilaterally.

The steel industry also fell under the privatisation scheme, leading to the transfer last November of Karmet, a large Kazakh steel mill, to foreign managers. As in the ferro-chrome industry, the new administration was freed from the company's old debts and contractual obligations. Sources at the mill and within AIOC say the transfer brought a loss of between $5m and $7m for AIOC.

AIOC's weakening positions in Russia and Kazakhstan and its trading losses were the biggest direct causes of its poor performance last year, but industry observers and former employees say the company also suffered because of a strategic mistake.

"At the end of 1994 and the beginning of 1995 the privatisation process in Russia really took off and the trading companies were divided into insiders, who bought shares, and outsiders who just traded," explained the head of a Russian metals trading company which has acquired a majority holding in one of the country's aluminium smelters. "AIOC made the wrong strategic decision – they didn't spend money to buy stakes in Russian companies."

In an interview earlier this month, Mr Clingman said that one lesson to be drawn from AIOC's experience was that "probably" the only way to survive in Russia today is to buy local companies. But Mr Clingman said that "it was never our ambition to become an investor in Russia."

Former AIOC employees believe the company's trading losses and strategic mistakes were compounded by the ambition of its management.

"It is definitely a case of hubris in the top management," said one senior trader who has now left the company.

This approach led to high overheads – estimated by some former employees at $35m-$45m annually – which made it difficult for the company to survive a lean year.

At the end of 1995 and the beginning of this year, all of these factors came together. AIOC began to collapse. The company experienced severe liquidity problems. It came under intense pressure from its backers in Russia and the west. Russian traders said the company began to sell off stocks "very quickly, with little concern for the best price".

As AIOC's financial woes mounted, Mr Clingman says he sought salvation from Mr Marc Rich, but after talks with the legendary commodities trader fell through, the pressure on AIOC from its creditors became even more intense.

"Once it became known that our discussions with Marc Rich would not amount to a transaction, there were a lot of rumours in the market," said Mr Clingman. "A lot of our creditors became more aggressive in dealing with us. Without continuing financing, the company goes into a meltdown situation. It became a self-fulfilling situation."

In early March, several brokers issued margin calls to AIOC. When the company failed to meet them, the brokers liquidated AIOC's open positions, cancelled the firm's lines of credit and asked for immediate payment. Last month, fearing that AIOC would ditch its foreign assets in a fire-sale, a group of brokers, including Lehman Brothers, Crédit Lyonnais Rouse, Merrill Lynch and Mitsui Bussan, filed involuntary Chapter 11 proceedings against the company.

In a letter to AIOC filed to the court, Mr William Olshan, a Lehman Brothers vice-president, alleged the company may have obtained credit "in bad faith".

But some former and current AIOC employees are more worried about the local reaction. Some ex-employees said they had received serious warnings, and well-informed Russian businessmen believe AIOC's senior management could be in a dangerous position. "The past three months have been totally depressing," said one former employee. "It was a time of death threats. It's not that they say 'we will kill you', more like 'we suggest for your safety that you pay us'."

Tokobank, Menatep and Vneshtorgbank, AIOC's biggest Russian creditors, reacted publicly to the company's collapse in a mild way, insisting that it would not significantly affect their balance sheets.

But a source at one of the banks said AIOC's default marked a turning point in the assumptions Russia's fledgling capitalists make about their western counterparts.

Well-informed Russian businessmen believe that AIOC's senior management could be in a dangerous position. Some ex-employees said they had received warnings. 'The past three months have been depressing,' one said. 'It's not 'we will kill you', more like 'we suggest for your safety that you pay us'

"It is a paradoxical situation for us, because we are accustomed to Russian clients not returning credits, but we don't expect it of westerners," he said.

Some observers see the crash of the high-flying AIOC traders as a Russian *Bonfire of the Vanities*, and warn that other foreign companies may collapse as the easy money of the early 1990s gives way to a more settled, long-term business environment. But others say the US company's failure could also, inadvertently, contribute to the coming of age of the Russian market, as Moscow financiers learn that even western capitalists can go broke.

Reports by Chrystia Freeland in Moscow, Kenneth Gooding in London, Sander Thoenes in Almaty and Matthew Kaminski in Kiev

Prices for electricity determined for the purposes of the electricity pooling and settlement arrangements in England and Wales.

1/2 hour period ending	Provisional Prices for Trading on 02.05.96: Pool purchase price £/MWh	Final Prices for Trading on 04.04.96: Pool purchase price £/MWh	Pool selling price £/MWh
0030	9.00	9.34	9.34
0100	8.98	9.32	9.32
0130	9.03	9.38	9.36
0200	12.48	22.00	23.57
0230	12.48	25.00	26.57
0300	12.48	29.08	30.63
0330	12.48	25.00	26.57
0400	12.48	23.25	24.82
0430	12.48	23.25	24.82
0500	12.48	23.25	24.82
0530	12.18	23.75	25.32
0600	12.01	9.36	9.36
0630	9.02	9.44	9.44
0700	16.62	25.87	27.45
0730	22.82	28.23	30.84
0800	18.35	36.41	38.18
0830	29.42	45.47	47.34
0900	29.92	45.70	47.60
0930	28.86	45.33	47.17
1000	29.77	36.45	38.21
1030	24.88	36.21	37.92
1100	25.12	33.57	35.24
1130	44.36	33.52	35.19
1200	44.89	33.49	35.15
1230	44.81	30.00	31.64
1300	43.46	29.21	30.82
1330	24.17	28.93	30.51
1400	23.84	28.90	30.47
1430	22.75	28.89	30.46
1500	22.71	27.88	29.26
1530	22.72	27.68	29.25
1600	22.88	27.68	29.25
1630	23.14	27.88	29.25
1700	29.06	27.88	29.25
1730	32.55	27.68	29.25
1800	26.64	27.68	29.25
1830	22.84	27.68	29.25
1900	22.54	9.44	9.44
1930	17.86	9.36	9.36
2000	17.32	9.32	9.32
2030	17.32	45.35	46.92
2100	19.79	47.32	48.89
2130	42.48	47.32	48.89
2200	42.48	45.35	46.92
2230	42.48	25.86	27.43
2300	17.32	25.88	27.43
2330	16.62	9.36	9.36
2400	15.00	9.32	9.32

Prices are determined for every half-hour in each twenty-four hour period. Prices are in pounds per megawatt-hour, rounded to two decimal places. To convert prices to pence per kilowatt-hour the decimal point should be moved one place to the left, eg £16.66/MWh becomes 1.666p/kWh. Provision for the determination of pool prices is made in the Pooling and Settlement Agreements which govern the operation of the electricity pool in England and Wales. The Pool Purchase Price is the basis of the majority of payments made to generators in respect of electricity traded through the pool. The calculation of pool prices is a highly complex process the product of which is subject to revision or correction (and sometimes major alterations) until final pool prices are determined approximately twenty-four days after the day of trading. Accordingly, due to the possibility of their revision and/or correction, no reliance should be placed upon provisional pool prices for any day being the same as final pool prices for that day. Final pool prices are also capable of revision. Pool Selling Price is the price paid by purchasers of electricity under the pool trading arrangements. It is dependent upon the determination of Pool Purchase Price. Further information on pool prices is provided on behalf of the Pool by Energy Settlements and Information Services Limited. Anyone wishing to receive such information should telephone 0115 946 6759 between 8:30am and 5:15pm Monday to Friday.
©Energy Settlements and Information Services Limited

Motorola team seeks EU probe over Irish licence

By John McManus in Dublin

A consortium involving Motorola, of the US, is to complain to the European Commission over the Irish government's handling of the competition for Ireland's second GSM mobile phone licence.

Persona, the consortium involving Motorola and ESB, the Irish state electricity company, was one of five unsuccessful bidders for the licence, which was awarded last November. However, Esat Digifone, the successful Irish-Norwegian consortium, has yet to sign the licence, which is still be drafted by the Irish attorney general's office.

Motorola is claiming the competition process lacked transparency and openness, and therefore infringed European law. They also claim it was skewed to produce less competition for Eircell, the state-owned mobile phone company.

This included capping the licence fee at I£15m ($23.3m) and giving a relatively low weighting to tariffs in the selection criteria. Such action could constitute state aid to Eircell, maintains the Motorola consortium.

Motorola and other US corporations involved in unsuccessful consortia have enlisted the help of the US embassy in Dublin. Mr Dennis Sandberg, the counsellor at the embassy, has written to the Irish department of communications asking it to meet the US companies to explain why they were unsuccessful.

Mr Michael Lowry, minister for communications, defended the competition process in the Irish parliament on Tuesday. He pointed out that his department was advised by independent consultants and said there was a "rigorous and completely independent evaluation of six applicants".

Mr Lowry also pointed out that Motorola and the other US companies – including AT&T, Comcast and Southwestern Bell – had all insisted on their bids being treated confidentially.

An EU investigation resulting from the Motorola complaint is not expected to delay the signing of the licence by Esat Digifone later this month.

Esat Digifone is 40 per cent owned by Telenor, the Norwegian state telecoms company, and 40 per cent by Esat Telecom, a private Irish telecommunications company.

The remaining 20 per cent of the company is being offered to private investors through an investment company run by Mr Dermot Desmond, the Irish financier who owns London City Airport.

Persona has also claimed that Esat Digifone is in breach of the terms of the competition because it has not disclosed full ownership details. The department of communications has said full details of the consortium's make-up will be disclosed before the licence is issued.

Tele Danmark in Internet expansion

Tele Danmark, the Danish telecoms group, said it was launching a Danish electronic marketplace on the World Wide Web that would ease access to the Internet and raise the number of Danish users by hundreds of thousands by the end of 1997, reports AFX News from Copenhagen.

About 2 per cent of Denmark's 2.4m households now have access to the Internet, and growth is hampered by the fact that ordinary users find the interface complicated, it said.

"Our surveys show that Internet access is still limited to those with a special computer interest," the company said.

Its new CD-Rom product, Opasia, will offer simplified access to 40 Danish companies and services including banks and newspapers, and various public services, for DKr25 ($4.23) a month.

For a further DKr40, users can have full access to the World Wide Web with their own address. The package includes a Danish version of Netscape software and quarterly CD-Rom update, it said.

In its 1995 report, Tele Danmark said it was the largest provider of Internet connections in Denmark.

● Mr Hemjoe Klein, chief executive of the passenger division of Lufthansa, the German airline, said 1995 passenger numbers grew 7.9 per cent and its load factor grew by 1.6 percentage point, reports Reuter from Hong Kong.

Jyske Bank 'ahead of budget' at DKr148m

By Hilary Barnes in Copenhagen

Jutland-based Jyske Bank, which ranks fourth among Danish commercial banks with assets of DKr53bn ($8.96bn), boosted first quarter pre-tax earnings to DKr321m this year, against DKr148m in the same period in 1995. With a rise in post-tax income from DKr144m to DKr148m, earnings per share were ahead from DKr17.78 to DKr20.13.

The bank, which is the only Danish bank to publish quarterly earnings figures, said the results were ahead of budget.

Despite a decline in short-term interest rates this spring, net interest and fee income rose by DKr20m to DKr572m. Advances were up 9 per cent to DKr28.17bn, while deposits grew by almost 4 per cent to DKr38.06bn.

Operating income was not greatly influenced by adjustments for the market value of the securities portfolio, an item that often causes significant year-to-year fluctuations in Danish banks' results.

The first-quarter securities and foreign exchange revaluation item was a positive DKr52m this year, compared with DKr47m last year, said the bank.

Operating expenses increased by 3 per cent to DKr362m. Loan loss provisions were raised from DKr51m to DKr79m, attributed by the bank to "statistical provisions" on private customers with loans of less than DKr1m, which were increased by DKr33m to take account of increased lending to this customer segment.

Non-performing loans were DKr597m, down from DKr784m a year ago.

The bank confirmed its year-end forecast of profits before revaluation of securities and extraordinary items of about DKr600m-DKr750m, after provisions of DKr300m-DKr350m. Earnings on this basis were DKr686m in 1995.

The bank's earnings, however, are highly sensitive to changes in bond prices and yields. A change of 1 percentage point in average bond yields means a difference of plus or minus DKr100m-DKr150m in the bottom line, according to the bank.

Jyske Bank's capital adequacy ratio at the end of the first quarter was 11.7 per cent, of which 9.7 per cent was Tier 1 capital, which alone was more than enough to fulfil the legal minimum capital adequacy ratio of 8 per cent, the bank pointed out.

Astra sets its sights on further growth

Swedish drugs group sees no merit in the fashion for alliances, writes Hugh Carnegy

Mr Hakan Mogren is a tall, imposing Swede with a shock of silver hair whose cheerful demeanour disguises a tough streak – especially when it comes to those who wonder when the spectacular run of success achieved by Astra, maker of one of the world's two biggest-selling drugs, will start to wane.

"People say 'trees don't grow to heaven,'" Mr Mogren, chief executive since 1988, acknowledges with a smile. "They are looking for negative factors about Astra. But I'm sorry. Those factors are just not there."

As Astra prepares for a listing next month on the New York Stock Exchange – only the second Swedish company to do so – Mr Mogren is no less defiant about his strategy of *maintaining the independence* of Astra.

The group has ridden to the top of the pile of Swedish companies in market value on the back of its blockbuster anti-ulcer drug, Losec. But it remains a medium-sized force in the world pharmaceutical market.

Nonetheless, Mr Mogren is distinctly unimpressed by the wave of takeovers and mergers sweeping the drug-makers' world. The latest deals have seen the merger of Switzerland's Sandoz and Ciba to form Novartis and, closer to home, the marriage of Sweden's Pharmacia with Upjohn of the US.

"I cannot understand why some of these mergers have been done," declares the Astra chief. His suspicion is that low-growth, high-cost operators will "mix old problems with new problems and get drowned."

A company with Astra's high rate of growth does not need such an alliance, he says. "If you are growing at high speed, you can't do mergers and acquisitions at the same time."

Thanks to Losec, which this year is set to become the world's biggest-selling prescription drug, Astra's sales growth in recent years has risen at more than double the industry average, and *profits growth* has for long periods outstripped sales growth. Last year, net profits jumped 29 per cent to SKr8.8bn ($1.29bn) on sales up 28 per cent at SKr35.8bn.

But the very strength of Astra's performance has begun to raise worries among investors about how long it can sustain such a record. This year, profits are expected to be damped significantly by the stronger Swedish krona.

More fundamentally, Losec's patent protection will run out in 2001 and analysts are concerned that Astra does not have the product pipeline to replace it.

There are also worries about new ulcer treatments that may erode the long-term use of Losec and its rivals.

"Some time in the future, Astra will be a victim of its own success," says a London-based pharmaceutical analyst, who declined to be identified.

"Losec is a great product, but we have seen in the past that companies with such successful drugs cannot replace them organically."

Characteristically, Mr Mogren has a robust riposte. "Of course, a product like Losec is a once in a lifetime product. But we strongly believe that the sum of all our other products is going to give us volume increases in the future matching what we have had with Losec."

Before that happens, however, Astra expects a great deal more in performance from Losec. The drug has won a 40 per cent market share in Europe, just over 25 per cent in the US (where it is now sold through Astra-Merck, a joint venture with the US company) but only 5 per cent in Japan.

Underlying sales growth in the US is running at a rate of some 40 per cent a year. Mr Mogren says Losec has to date fulfilled only between one-third and one-half of its market potential.

He also argues that market worries about changing treatments of ulcers are misplaced. In the lower intestinal tract, the discovery that a bacterium called helicobacter pylori was a cause of peptic ulcers has led to a breakthrough where the ulcers can now be eliminated quickly through the combination of Losec and antibiotics.

This has caused some to question whether Losec will, therefore, start to eat into its own potential as a long-term chronic treatment. But Mr Mogren says that the new treatment offers "enormous" new potential for Losec. And, he says, upper tract ulcers are not caused by the bacterium, which means long-term treatments will still be needed for them.

But what has Astra got in the product pipeline to support Mr Mogren's bold assertion that the company will have the drugs to secure its post-Losec future?

Of Astra's three core areas apart from gastro-intestinal treatments – respiratory, cardio-vascular and pain control treatments – the biggest success to date is for Pulmicort, an anti-asthma therapy increasingly administered by Astra's Turbuhaler inhalation device. Pulmicort sales rose 17 per cent last year to SKr4.3bn.

Astra is keenly awaiting approval for the Pulmicort-Turbuhaler combination in the US. However, Pulmicort on its own will not take up the slack when Losec sales begin to slow. Astra has, therefore, moved to expand greatly its research and development effort to increase the flow in its product pipeline. Most notably, it bought the R&D operations of the UK's Fisons last year for SKr2.4bn.

Altogether, Astra's R&D budget will reach SKr7bn this year, a 75 per cent increase over two years ago.

Mr Mogren says Astra has as many projects in the vital – *and expensive – clinical phase* of development as in the preclinical stage.

As well as projects in its four core areas, Astra is working on potential treatments for central nervous system disorders, such as strokes, and is looking to other areas such as immunotherapy.

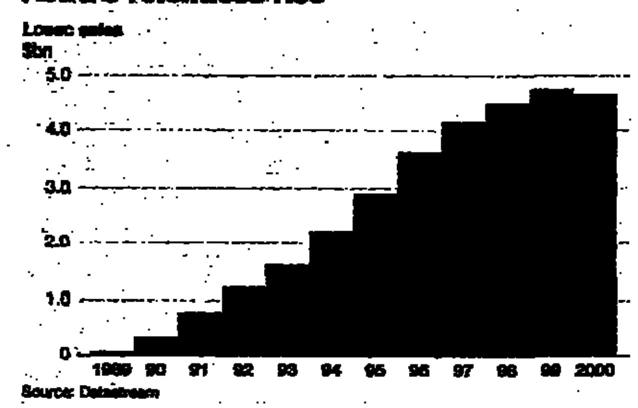
But the company's R&D spend as a proportion of its sales is only now coming up to industry averages.

"Mr Mogren's statement about future volumes implies far more breadth in their pipeline than is visible at the moment. It is a very confident statement," says the London-based analyst.

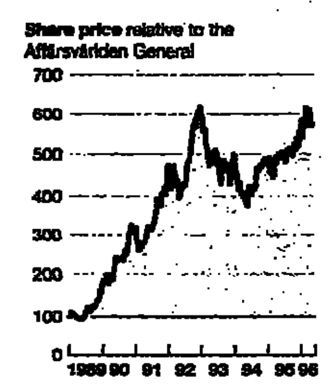
Confident is certainly a word that applies to Mr Mogren. The market may speculate that Astra would be a perfect partner for most of the world's top 10 pharmaceutical groups.

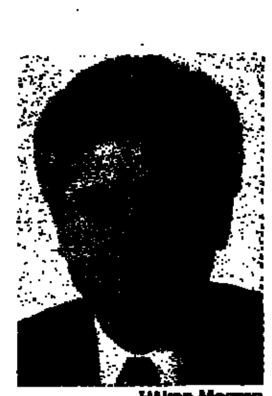
But with an expensive price tag and a core shareholder in the Wallenberg empire, Astra is not an easy takeover target. And Mr Mogren is not looking for a merger. His sights are set on more growth. "The distance between the trees and heaven is very large," he says.

Astra's relentless rise



Source: Datastream





Håkan Mogren
Chief executive

COMPANIES AND FINANCE: THE AMERICAS

US insurers weather the storm

By Richard Waters in New York

An increase in weather-related losses failed to dent the growth in operating income at two of the US's biggest insurance groups, CNA Financial and Cigna, during the first three months of this year.

The two companies, which have been at the centre of the restructuring under way in the US property/casualty insurance industry, each suffered the effects of the severe weather which hit large parts of the US last winter.

However, their latest results also reflect the overall improvement in earnings at US insurers which has followed the recent wave of restructurings and mergers, as well as improving conditions in the commercial insurance markets after a long period of margin pressure.

The solid operating earnings reported by these and other big US property/casualty insurers for the opening months of this year follow the most successful year on record for the industry.

Thanks to the absence of big hurricane or other catastrophe losses, the industry registered after-tax profits in 1995 of $20.1bn. This was twice as much as the year before, according to figures compiled by the Insurance Services Office.

The rebound in earnings, and a renewal in stock market enthusiasm for some insurers, has ensured a strong stock market debut in recent days for Travelers/Aetna. The company was created when Travelers, the US financial services group, merged its property/casualty operations with those of Aetna, which it acquired for $4bn.

Just under 9 per cent of the new unit was sold to the public in an initial public offering last week, raising $875m. Yesterday lunchtime the company's shares were trading at $27⅝, compared with a launch price of $25, valuing the company at more than $10bn.

Net income at both CNA Financial, which reported results yesterday, and Cigna, which reported late on Tuesday, were distorted by investment gains.

CNA, an insurance company which is controlled by Mr Larry Tisch's Lowes group, bought the struggling Continental insurance company a year ago, making direct comparisons with a year before difficult.

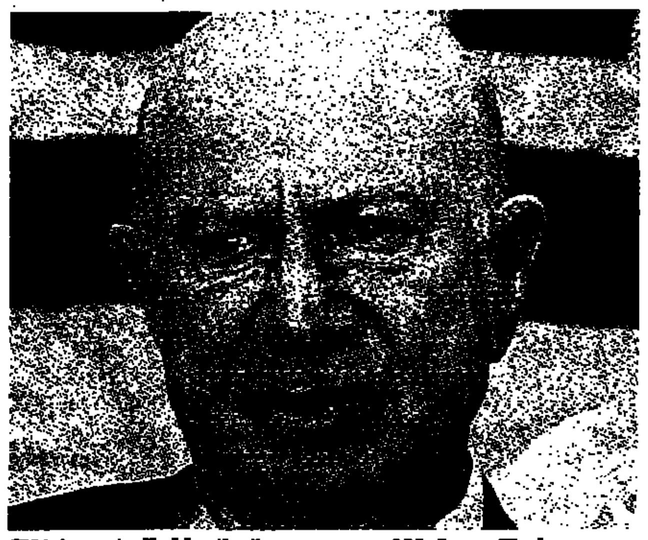
Overall, CNA reported net income of $329m, or $5.30 a share, on revenues of $4.3bn. That compared with after-tax profits of $153m, or $2.44, on revenues of $3.1bn the year before.

The insurer's earnings were lifted by substantial investment gains, which accounted for more than half its earnings per share for the period. While earnings from the property/casualty business rose to $152m for the period, from $118m a year before, pre-tax investment gains jumped to $305m, from $26m.

Cigna registered after-tax profits of $238m, or $3.10 a share, down from $290m, or $4, from the previous year.

The company's operating income, though, climbed 50 per cent to $219m, largely due to a turnround in its domestic property/casualty business and an advance in its profitable international operations.

Cigna won approval earlier this year for a controversial restructuring of old environmental and asbestos liabilities. This move which was intended to help restore the health of the group's property/casualty business.



CNA is controlled by the Lowes group of Mr Larry Tisch

Brazil groups create results jungle

Legislation and tax disputes confuse analysts, says **Jonathan Wheatley**

Predicting a company's performance is always a tricky business. In Brazil, measuring past performance is no easier.

Balance sheets, even for reputable companies, often contain distortions that only experienced eyes can identify; some are undetectable. Now analysts fear a law change affecting inflation-adjusted accounts may make many balance sheets virtually meaningless.

Lafis, a research group, studied the 1995 accounts of 66 publicly-traded companies. Using only information in the balance sheets, it made its own calculations of each company's net profit or loss by separating extraordinary items from the company's normal activities. Of the 66, Lafis found that the true results of 35 companies were lower than published, while 13 were higher and only 18 were the same.

Extraordinary items occur in balance sheets around the world, but Mr Jorge Kotani of Lafis says they weigh particularly heavily in Brazil because of frequent changes to }tax laws and drawn-out legal disputes between companies and the tax authorities, which companies often win. That means Brazilian company accounts are peppered with provisions for future tax payments, and with reversals of past provisions.

But companies are not obliged to show provisions for future taxes on their published balance sheets – only on their unpublished statements to the tax authorities. When a company reverses a past provision – an accounting procedure that creates a profit – it can do so at once, or over several years. Some companies use these profits to cover up poor operating performance.

"What companies are doing is absolutely and definitely within the law," says Mr Carlos Yamashita, also of Lafis.

"They may, and in some cases must, include extraordinary items in the profit or loss line. But the law gives them room for manoeuvre."

Severe doubts about the reliability of audited balance sheets surfaced recently when two high street banks revealed significant liquidity problems within days of issuing healthy results.

Fresh concerns have been raised by a law passed at the end of last year which determined, as part of the government's anti-inflationary tactic of removing all indexing from the economy, that Brazil's securities commission, the CVM, can no longer force quoted companies to publish inflation-adjusted accounts. These expressed results for the past year and, for comparison, the previous year calculated according to currency values at the last day of the last accounting period.

The government says such accounts are not needed now that monthly inflation has been cut from double digits to about 1 per cent. But observers say comparing a company's performance over time will become impossibly complicated.

The CVM, which shared these fears, told quoted companies to publish unadjusted accounts but gave them the option of continuing to publish corrected accounts as well.

"The previous system }allowed us to compare apples with apples," says Mr Ivan Clark, a partner at accountants Price Waterhouse in São Paulo. "But even inflation of 10 per cent or 15 per cent a year accumulates very quickly."

One example is the petrochemicals company Copene, which published results for the first quarter of 1996 } according to both methods. One set, which ignored 3.5 per cent inflation during the period, showed pre-tax profits }of R$23.3m (US$23.6m). }The second, which allowed for inflation's effects, showed profits of R$43.5m.

"Analysts must decide which result they think most accurately reflects our performance," says Mr Wong Shin, Copene's financial director.

His argument in favour of the adjusted method is simple: "If you borrow money at 2 per cent a month and inflation in the month is 1.5 per cent, what is the real interest rate? Two per cent or 0.5 per cent?"

Even if companies decide to publish two sets of results, there will still be plenty of room for confusion. In the past, accounts were adjusted according to the government's official index, known as the Ufir. The Ufir, however, is being phased out. }Now companies must decide for themselves whether to adjust their results in line with the US dollar, or with any one of the many other inflation indices available.

Not all companies will do so. WEG, a maker of electric motors, announced it would only publish unadjusted results. Mr Alidor Lueders, finance director, says that annual inflation of less than 20 per cent will have little impact on }its figures.

Analysts say other companies will follow WEG because adjusted accounts are very close to the management accounts which companies use when making operational decisions.

Not publishing adjusted figures will reduce the amount of strategic information available to competitors.

This year sees an additional complication. At the end of last year, the government }cut the top rate of corporate income tax }from 43 per cent to 25 per cent. But, by simultaneously ending inflation-adjusted tax accounting, it ended the practice by which companies used to correct the values of their fixed assets and net worth.

In the past, a company whose net worth exceeded fixed assets would see its tax base reduced. That will no longer happen, so capitalised companies will tend to fare worse under the new regime, while indebted companies will tend to do better.

In Brazil, where the cost of borrowing is very high, well-run companies are usually well capitalised. For many, the losses from the end of inflation-adjusted tax accounting are likely to outweigh the benefits of lower tax rates. Companies and investors will have to wait until the end of 1996 to find out.

Brazilian company results 1995

	published net profit (loss) US$m	Lafis net profit (loss)* US$m
Acesita	32.1	11.5
Alpargatas	27.7	(0.6)
Belgo Mineiro	14.1	(7.3)
Brahma	261.6	213.8
Copene	148.8	143.5
Cosipa	73.8	(113.1)
Eletrobrás	778.3	(2,154.0)
Iochpe-Maxion	(109.0)	(146.6)
Itausá	221.1	499.3
Klabin	87.6	127.9
Metal Leve	(20.2)	(9.8)
Sadia Concórdia	92.4	43.0
Varig	(7.1)	(7.1)
WEG	30.5	30.5

* Lafis readjusted results excluding extraordinary items — Source: Lafis

NEWS DIGEST

US chemicals group takes over rival

Uniroyal Chemicals, the speciality chemicals producer, is to be acquired by fellow chemicals group Crompton & Knowles in an agreed deal valued at about $1.4bn, including debt. Crompton will issue stock worth $15 for each Uniroyal share, valuing Uniroyal's equity at just over $200m.

The combined group will have debt of about $1.1bn. Crompton said it would slash its dividend from the current $0.54 annually to $0.05, as a means of paying down debt to the point where the company's debt rating attains investment grade. Uniroyal's shares jumped $2⅞ to $14½ in early trading, while Crompton's rose $⅞ to $16.

The deal marks the end of the company's independence after more than a century. In 1985, Uniroyal, then the third largest US tyre company, put its chemicals business up for sale to help pay down debt acquired in fighting off the corporate raider Mr Carl Icahn. Uniroyal Chemical was bought for $710m in 1986 by financiers Mr Nelson Peltz and Mr Peter May. In 1989, it was sold to management for $240m in cash plus the assumption of $560m in debt. In the same year, the Uniroyal tyre business was taken over by Michelin of France.

With sales last year of $1.1bn, Uniroyal specialises in agrochemicals and elastomers. Its agrochemicals business has at times proved controversial. In 1989 it withdrew Alar, its best known product used to keep apples fresh, on charges that it might be a carcinogen. Last month, it agreed to withdraw the pesticide propargite from use on 10 crops commonly used on baby foods, on similar grounds.

Crompton & Knowles, the smaller of the two in sales terms, made net profit of $40.5m last year, down 24 per cent from a peak two years earlier, on sales of $666m. The company makes dyes, flavours and fragrances, and blow moulding equipment for use with plastics.

The combined company will be known as Crompton & Knowles, and will be headed by Mr Vincent Calarco, Crompton chairman.

Moody's Investors Service, the credit rating agency, yesterday said it had placed the rating of Uniroyal Chemical on review for potential upgrade. About $900m of long-term debt securities were affected, Moody's said.

Tony Jackson, New York

Air Canada increases loss

Weak domestic markets and the heavy cost of international route expansion deepened Air Canada's first-quarter net loss to C$96m (US$70.5m) or 62 cents a share, from C$88m, or 74 cents, a year earlier. This was on revenues of C$1.1bn against C$1bn.

The first-quarter normally shows a loss because of seasonal factors. "International profitability will accelerate as new routes are fully established," the group said. "Air Canada will continue to focus on cost reduction and developing higher-margin markets to ensure adequate returns."

Passenger revenues rose 13 per cent overall because of strong international results. International traffic was up 24 per cent and yield increased 3 per cent; domestic traffic rose 11 per cent but revenues only 1 per cent because of fare price wars. Domestic yields dipped 9 per cent. Severe weather also hit revenues in Canada.

Robert Gibbens, Montreal

Petrocan considers asset swap

Petro-Canada is considering exchanging some of its interests in Canada's east coast offshore oil fields for assets of one or more international companies. Mr James Stanford, president, said in Calgary that talks were under way with several unidentified groups but would take several months to complete. He would not comment on reports that one of the companies involved was Norway's Statoil.

Petrocan owns 25 per cent of the C$7bn (US$5.4bn) Hibernia project, 200 miles east of St John's, Newfoundland. It is due to come on stream in 1997, with a target production of 135,000 barrels a day. Petrocan also owns part of nearby Terra Nova, planned to come on stream in 2001, producing 100,000 barrels daily.

Robert Gibbens

Disposals deepen Domtex deficit

Dominion Textile, the international denim and non-wovens producer, said it would post a C$38.2m (US$28m) net loss on the sale of its nine Canadian and US yarn plants. The disposal should be completed by the end of June, for net proceeds of about C$110m.

Including this loss and other special items, Domtex posted a net loss of C$46.1m or C$1.13 a share for the third quarter ended March 31, against a profit of C$10.1m or 22 cents a year earlier, on sales of C$266m, down 6.6 per cent. The loss for the nine months was C$53.8m, or C$1.37 a share, against profit of C$25.3m, or 53 cents a share, on sales of C$817m against C$794m.

Robert Gibbens

EDS eyes Roccade

Electronic Data Systems the computer services consultancy being spun off from its parent General Motors, wants to acquire Roccade, the Dutch state-owned information technology company, Dutch newspapers reported. Discussions with the management of the former state computer centre are due to start next week.

Algemeen Dagblad said the approach was confirmed yesterday by a spokesman from the home affairs ministry, owner of Roccade, which is due to be privatised this year. Mr Jos Schoemaker, EDS North Europe vice-president, was reported to have said talks with Roccade management would begin next week. He added that EDS had no interest in a hostile takeover.

AFX News, Amsterdam

هكذا من الأصل

Giordano struggles to control its franchisees

The Hong Kong retailer is in the dark as Chinese authorities force a rash of store closures, writes Louise Lucas

Franchise operators are keeping a close watch on Giordano, the Hong Kong retailer that has suffered a rash of store closures in China. Their concern is to establish whether the closures stem from poor corporate management or over-zealous government bureaucracy.

Lax management is a charge denied by Giordano, but it is the one preferred by its peers. Pinning the closures on Beijing – even claiming it is punishing the company, still, for the outspoken pro-democracy views of its founder and erstwhile chairman, Mr Jimmy Lai – allows for the possibility that a similar fate lies in store for others setting up franchise operations in China.

To date, Giordano executives claim to be almost as much in the dark as those watching them. They have established that the 11 Shanghai stores, which accounted for 0.9 per cent of the company's net turnover last year, were closed after the franchisee was notified by the Shanghai Administrative Bureau for Industry and Commerce of its power to do so during an investigation of possible illegal actions. Management has still not ascertained the reason behind the other 25 franchised stores closures, 20 of which subsequently re-opened.

Depressing though it may be for the competition, analysts reckon the closures may have a lot to do with doing business in China and controlling franchisees across a sprawling nation where changing goalposts are a fact of life.

Mr Kent Chan, analyst at Salomon Brothers, says: "I don't think Giordano has very much control over its franchisees, and that's the whole point of franchises. You have almost no control over them, and that's why the upmarket names don't use them. The amount of controls in the best cases are limited, especially in China."

Another analyst concedes: "Giordano management is very good at working very hard to improve support in China, but I think it might be the case that they are expanding a bit too fast." Mr Chan, of Salomon, notes that the business has grown 30 per cent over the past two years, but no new executives have been brought on board.

If franchising in China is the issue, there are ramifications for a host of shops and restaurants operating in the mainland.

For example, Theme, a retailer of women's working clothes with around 20 stores in the mainland and ambitious plans to expand, has made a point of exercising tight control, as well as managing and directly owning all stores in the strategic cities of Guangzhou, Beijing and Shanghai.

Ms Dora Hung, a retail analyst with Kleinwort Benson, praises Theme's strategy but agrees franchises are a potential problem. "People are starting to recognise the problem and they are exercising much tighter control. This is a very good lesson for all these people," she says.

Another analyst at a European securities house notes: "If the Chinese authorities really want to pick on you, they can say they want to do an audit on your books. Value added tax is supposed to be paid every month, but it is almost an honour system. If they don't believe in your books they can carry out an investigation or audit in the shops, and that may mean closing them down."

Mr Lai stepped down as non-executive chairman in August 1994 and in February of this year he severed his remaining ties with the company by selling his final 27 per cent stake in it.

Analysts who believe Mr Lai is still the crux of Giordano's problems reckon Beijing is convinced he retains an interest in the company, possibly through a nominee or related trust. Says one analyst wryly: "That's certainly not the case, but you cannot control what the Chinese authorities think."

Brokers are also divided on whether Mr Lai is still the maverick voice he once was. Some say he is still outspoken in Next Magazine and Apple Daily, the Chinese-language newspaper he launched last year.

But the staple fodder of the newspaper veers much more towards salacious gossip, scandal and horrific accidents; and the magazine, too, has moved far from the days immediately after the Tiananmen Square massacre in June 1989.

Punishment for Mr Lai's views, real or imagined, has never seriously dented Giordano's share price for long.

US and European institutions have been firm fans of Giordano, buying up stock and absorbing placements even after Mr Lai's blistering attack on China premier Li Peng in his weekly Next Magazine resulted in the closure of the Beijing shop.

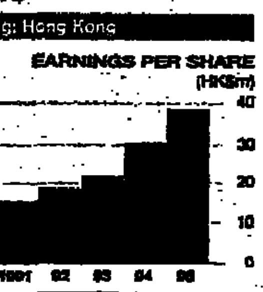
One broker, who harbours his own suspicions about the bull fervour on the stock, notes: "Hong Kong companies are never the same once the founder gets out, unless you are very lucky. And yet the stock was going up to record levels and institutions went into the placement [when Mr Lai sold out] like lemmings."

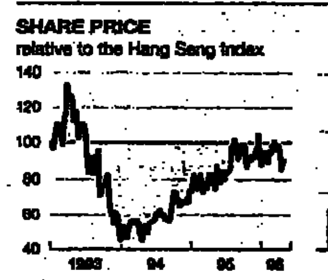
PROFILE:

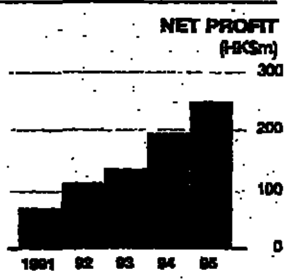
GIORDANO HOLDINGS

Market value: US$584.2m Main listing: Hong Kong

Historic P/E	18.43
Gross yield	1.89%
Earnings per share	38.8cents
Current share price	HK$7.1







Source: Datastream, Reuter

A diary of problems

August 8 1994: Beijing store closed; follows criticism of Chinese premier Li Peng in Lai's Next Magazine

August 12 1994: Lai resigns as non-executive chairman

October 18 1994: China Resources, one of China's leading trading companies and owned by China's ministry of foreign economic trade and co-operation, sells virtually all of its 10.13 per cent stake and withdraws its representative from the board; retains 0.35 per cent

October 2 1995: Lai cuts his stake from 36.4 per cent to 27 per cent

February 28 1996: Lai sells his remaining 27 per cent

March 1996: Eleven franchised Shanghai stores closed

March & April 1996: A further 25 franchised stores closed, 20 of which re-open

Pacific BBA in A$275m bid to acquire Azon

By Nikki Tait in Sydney

Pacific BBA, the Australian manufacturing group, yesterday launched a hostile A$275m (US$216m) bid for Azon, the former manufacturing division of the Boral building materials group which was floated on the stock market three years ago.

The bidder said that merging the two operations should "provide strong growth opportunities".

The larger size would provide a broader revenue base, and allow for the expansion of export-related activities and offshore operations, it said.

The combined group would have annual sales of around A$780m, and about 6,000 employees.

However, Azon told shareholders to take no action, saying that the bid premium offered by Pacific BBA was "considerably less than would be expected in the case of a typical unsolicited offer".

Pacific BBA, which was originally controlled by the UK's BBA group until the parent divested its 58 per cent shareholding in 1993, is offering either one of its own shares and A$1.45 in cash for every two Azon shares, or a straight cash alternative of A$2.10 per Azon share.

The cash offer is worth only 10 cents more than the price at which Azon shares were floated three years ago. It is also only a fairly modest premium to the A$1.90 price at which Azon shares closed on Tuesday night. Yesterday, they ended well above the bid price – at A$2.21 – suggesting that traders expect a higher offer at some stage.

Azon is involved in a wide range of industrial products – from conveyor belts to insect screening and other wire mesh products.

Shareholders have had a bumpy ride since the stock-market debut, with their investment initially going to a significant premium over but then falling back to less than the float price.

Profits after tax in the 1994-95 financial year were A$24.5m, but the company has warned of a lower figure in the current period.

Pacific BBA, on the other hand, is mainly involved in automotive components, plastic products, and construction-related supplies. It made an after-tax profit of A$25.3m (before abnormals) in 1995.

The company indicated that it expected the current year to be slightly lower at A$23.1m, but said the outlook for 1997 suggested around A$35m.

AirNZ sees Ansett float in a 'few years'

By Nikki Tait

Air New Zealand has confirmed that a flotation of Ansett, the Australian airline, is a possibility in a few years' time – assuming its plan to buy a 50 per cent stake in the carrier from Australia's TNT first wins regulatory approval.

Mr Jim McCrea, Air New Zealand managing director, raised the idea in Auckland, but suggested that several years' work would be required first.

Under the revised Air NZ/Ansett plan, Mr Rupert Murdoch's News Corporation – which holds the other 50 per cent of Ansett – is due to acquire all of Ansett New Zealand. The hope is that it will satisfy New Zealand's competition authorities. Ansett New Zealand is the only leading domestic competitor to Air NZ.

● Gold Mines of Kalgoorlie, part of Mr Robert Champion de Crespigny's stable of mining companies, said yesterday it had sold its Jubilee gold operation to Copperfield Gold, a small listed exploration group, for A$20.5m (US$16.11m). Part of the payment is in shares, which could give GMK up to 20 per cent of Copperfield's equity.

● Broken Hill Proprietary, the Australian resources group, is to carry out a feasibility study on a A$130m ammonium nitrate plant in Queensland. The proposed plant, which could source its gas feedstocks from the coal-bed methane available from BHP-managed coal leases in the area, would produce about 140,000 tonnes of ammonium nitrate a year. This would used for explosives in mining operations.

Impala intent on leaping European fences

SA group plans to overcome veto of merger with Lonrho platinum arm, says Mark Ashurst

The European Commission's veto last week of a platinum merger has added controversy to the intrigue over the future of Lonrho's mining assets.

"We have turned ourselves inside out to try to see what can be done to make this merger acceptable to Brussels," says Mr Michael Mahon, chairman of Impala Platinum, the South African producer that wants to merge with Lonrho's platinum division.

"I wouldn't like to defy the commission, but I am quite happy to challenge them."

Impala's appeal to the European Court will be closely watched by Anglo American, which earlier this month acquired 9 per cent of Lonrho with an option to buy a further 18.5 per cent from the chief executive, Mr Dieter Bock. Although Anglo has ruled out a general bid for Lonrho, most analysts believe it is poised to take control of the mining division earmarked for demerger by Mr Bock.

Mr McMahon is adamant that if Impala can avoid the commission's censure, Anglo's ambitions will not obstruct the merger of Lonrho's platinum assets. The plans were conceived in 1989, when Impala took a minority stake in Lonrho's Eastern and Western Platinum mines, a year before the commission was given responsibility for vetting mergers between large European companies.

"We've got 27 per cent of the existing asset, an option over the other 73 per cent and an agreement to merge. The merger may be on life support, but it ain't dead."

He believes the commission's ruling was prejudiced by speculation over Anglo's interest in Lonrho: "Basically, all that talk [over the role of Anglo] has muddied the water." After a four-month enquiry, the court rejected the merger on the grounds that it would create a duopoly of two dominant platinum producers, Impala/Lonrho and Anglo American's Amplats, which could restrict the supply of platinum to world markets.

Michael McMahon: 'The merger may be on a life support, but it ain't dead'

When the commission announced its finding last week, it issued a warning that any subsequent attempt by Anglo to acquire Lonrho's platinum interests would also be vetoed. "I don't think there are options here that allow Anglo to extend direct influence over Lonrho's platinum division because that's just another concentration and the EU will get excited," Mr McMahon says.

Consequently, Lonrho may review its announcement, made in the wake of the commission ruling, that it would not join Impala's appeal to the European Court. "Dieter Bock has not said anything. Lonrho have got their interests, and Gencor has its objectives and so does Impala. There is a point at which those interests coincide, and that's the merger." In the meantime, Impala is exploring ways of restructuring the merger or moving it outside the commission's jurisdiction.

But most analysts believe that if the deal could have been restructured to the commission's satisfaction, this would have been agreed before the ruling. Impala, which is 46.5 per cent owned by Gencor, and Lonrho together supply about 28 per cent of the world platinum market. Amplats' market share is 35 per cent. Russia supplies about 23 per cent, but did not participate in the commission's enquiry.

The veto has prompted debate over the merits of the court's jurisdiction in Africa, which analysts expect will form the basis of an appeal by Impala. The grounds for a challenge to the court's jurisdiction are largely unexplored.

'I wouldn't like to defy the EC, but I am quite happy to challenge them' – Michael McMahon, Impala chairman

Less than 15 per cent of Impala/Lonrho's annual platinum production of 1.1m oz would be exported to Europe, well below the 25 per cent threshold which is one of several criteria governing the commission's intervention. The merger has also been cleared by the South African Competition Board, contrary to a claim last week by the EU competition commissioner, Mr Karel van Miert, that the South African authorities supported its ruling.

In a letter to the European Union dated April 19, the South African department of foreign affairs endorsed the merger and urged the EC to act "on actual cases of collusion" rather than targeting market domination as a potential basis for anti-competitive behaviour.

Mr McMahon held four meetings with the court during the course of its inquiry in an attempt to pre-empt its objections. "We offered to make it an indivisible part of the agreement that we would not limit supply. We said 'if we don't do what we have promised we'll do, the EC can unwind the merger'." The commission was unswayed.

Both Lonrho and Billiton, a Gencor subsidiary, are based in the UK, although Mr McMahon insists the EC's jurisdiction has "almost nothing to do with the domicile of the companies. They can go right through the corporate world if you or your parent company have got assets in Europe."

Mr McMahon dismisses speculation that when Lonrho's mining division could be listed outside Europe when it is demerged. "Companies who aspire to be international companies cannot delist to avoid the European Commission. But I can structure this transaction such that it falls outside their rules."

Taspen plans to sell half its stake in Barito Pacific

By Manuela Saragosa in Jakarta

Taspen, one of Indonesia's largest state-controlled pension funds, plans to sell half of its 17 per cent stake in Barito Pacific Timber, the Indonesian logging company which ranks as the world's largest exporter of hardwood plywood.

The finance director at Taspen, which does not usually release details of its investments, was quoted by the national daily newspaper Bisnis Indonesia as saying that the pension fund wants to sell 100m of the 250m Barito Pacific shares it holds. He did not say when or to whom the shares would be sold.

Mr Rukhiyati Kosasih, Taspen finance director, said the divestment was motivated by "purely business reasons", adding that Barito Pacific had been exposed to tougher foreign competition in exports of plywood and that Taspen had already sold 25m Barito Pacific shares, reducing its stake to 17 per cent from 17.9 per cent previously.

Barito Pacific said last week that its audited net income in 1995 slumped by more than 50 per cent to Rp70.12bn ($30m) against a year earlier with high net interest income accounting for about 90 per cent of the pre-tax profit figure. The company has consistently failed to meet its profit forecasts since its initial public offering in 1993.

In addition to reducing its stake in Barito Pacific – which is controlled by Mr Prajogo Pangestu, who has close connections with the presidential family – Taspen also plans to divest part of its 17 per cent stake in Plaza Indonesia Realty, controlled by President Suharto's second son, Mr Bambang Trihatmodjo, and the engineering company Bukaka Teknik.

Mr Kosasih said the divestments were not related "to other things", which some analysts interpreted as an oblique reference to the fact that the founding shareholders of the three companies are politically well-connected.

The pension fund's professionalism has been questioned in the past, specifically in relation to a number of direct investments "which amounted to pre-IPO clean-ups of balance sheets," an analyst at a foreign securities house in Jakarta said.

Prior to Barito Pacific's IPO in 1993, the logging company's founding shareholder was summoned to Indonesia's parliament to explain why Taspen had taken a 20 per cent stake in the company for Rp375bn.

The deal valued the company at Rp3,000 a share, compared with the anticipated Rp7,200 price at which the planned flotation was to be set.

Taspen is estimated to have about Rp9,000bn in funds of which, under government regulations, only a limited portion is allowed to be invested in the stock market. News of Taspen's planned divestment caused shares in Barito Pacific to plunge nearly 10 per cent to Rp2,075 in early trading yesterday before recovering to close at Rp2,225.

Banco Santander to buy out partner in CCH

By George Graham, Banking Correspondent

Banco Santander, the Spanish banking group, is to pay DM300m ($195.6m) to buy out the 50 per cent stake held by its partner, Royal Bank of Scotland, in CC-Holding, parent company of Germany's CC-Bank consumer finance group.

CC-Bank, largely based in the Rhineland, was one of the operations turned into a joint venture when Santander and RBS formed their partnership in 1988.

The two banks each took 50 per cent, but said yesterday that it had gradually become clear that it would be more practical to have a single owner.

Santander offered to buy out RBS's stake in CC-Holding for a price equivalent to 27 times 1995 net earnings of DM15.4m.

Mr George Mathewson, chief executive of RBS, said the investment in CC-Bank had been a successful one. "We believe the price paid is a fair one," he said.

RBS and Santander remain closely linked in other ways, notably through their crossed shareholdings.

Santander now owns 9.9 per cent of RBS, while RBS has been gradually increasing its stake in Santander this year to 4.3 per cent. With the exercise of an option, that is expected to rise shortly to 4.9 per cent.

The two are also allied in Portugal and in the Ibos cross-border payments system.

CC-Bank's principal line of business is financing sales of around 13,000 car, furniture and electrical equipment dealers.

The bank increased its lending volume by 11 per cent last year to DM2.61bn, and its customer deposit base by 20 per cent to DM3.07bn.

RBS will receive DM206m from Santander for its 50 per cent equity holding in CCH. This payment will take the form of loan notes, guaranteed by the Spanish bank, with a maturity of 20 years.

The loan notes are redeemable after 10 years, but RBS said it had no plans to dispose of them before redemption.

RBS also owns DM94m of loan capital in CC-Holding, which it will sell for cash, plus accrued interest.

The sale is expected to improve RBS's tier 1 capital ratio, which stood at 6.3 per cent at the end of November 1995, by around 30 basis points.

It will improve the bank's overall capital ratio, 10.3 per cent at the end of November, by 10 basis points.

RBS is due to report its interim results for the six months to the end of March next week.

They are expected to have suffered from a downturn in profits at Direct Line, the bank's insurance subsidiary, which has been hit by the rising cost of claims and by fierce competition over premiums in the UK market.

An invitation to lend an ear to the talking banks

Investors have welcomed the greater openness of German financial institutions, writes **Andrew Fisher**

German banks used to be tight-lipped about their financial performance, revealing only the most basic figures. Now, however, they are becoming positively loquacious.

Terms such as shareholder value, return on equity and international accounting standards trip off executives' tongues as if they had been learnt from childhood.

Not that these concepts were previously unknown. It is just that the big German banks are taking to them with a wholeheartedness that would have been unheard of a few years ago.

As a result, analysts have been confronted with a welter of new data in the latest reporting season, in which profits were markedly better than in the lacklustre year of 1994. Deutsche Bank disclosed its hidden reserves; Dresdner Bank did the same, and added its property assets for good measure; Bayerische Vereinsbank gave a sectoral breakdown; and Commerzbank gave divisional profits. Banks also gave detailed information about risk provisions.

Deutsche Bank led the way among German banks by moving to international accounting standards (IAS). The idea is to give shareholders a greater insight into its financial performance, making it easier to raise money on international capital markets. "In our information society, there is demand for intelligent openness," said Mr Jürgen Krumnow, a director of the bank.

Deutsche Bank revealed hidden reserves of DM20bn ($13bn), representing the difference between the book value of its myriad shareholdings in companies such as Daimler-Benz and Allianz insurance and their market value.

Mr Hilmar Kopper, chairman, said the decision to move to IAS – which is less conservative than the creditor-oriented German system and allows closer comparison with foreign banks – fitted its global strategy. "The aim is full disclosure of our figures and targets."

Other banks are following, although not so enthusiastically or comprehensively. Dresdner Bank said its hidden reserves were DM9bn, or DM17bn if property and other holdings were included. Commerzbank declined to give this figure, but has provided more details of regional and divisional activities.

One disturbing aspect of the banks' performance last year was the weak domestic showing compared with the more dynamic trend abroad. The tough domestic market, with the economy slack and interest rate margins flat, continues to hamper profits growth in 1996.

Banks are cautious about the rest of the year. "All banks said *uni sono* that the first two months were very good," says Mrs Christine Winkler, banking analyst at Bayerische Hypotheken-und Wechsel-Bank. "But they warned against extrapolating from this for the whole year."

In spite of the mixed picture German banks are revealing, their greater openness has been welcomed by financial markets. "I think investors respond well to having the extra information," says Mr John Leonard, banking analyst at Salomon Brothers in London. He also thinks banks' increased concentration on shareholder value – involving more effective use of assets, closer attention to costs and awareness of the need to earn better returns – is positive. "We're talking about more than lip service here."

This means more disclosure in difficult times as well as good, Mr Leonard adds. "Once they've taken the step of opening up, they'll have to stay open. So if things deteriorate they can't just paper this over."

German banks will certainly have to look to their laurels if the competitive threat highlighted by the attempt of CS Holding of Switzerland to merge with UBS becomes a reality. Although this failed, the prospect of a big new rival across the border sent a frisson through the German banking community.

The talk in German banking circles is of possible amalgamations or even takeover moves by Swiss institutions in Germany. Commerzbank, the third-largest German bank, is regarded as a likely object of Swiss interest or as a possible candidate for a merger with one of its domestic competitors. At this stage, however, there is more speculation than action.

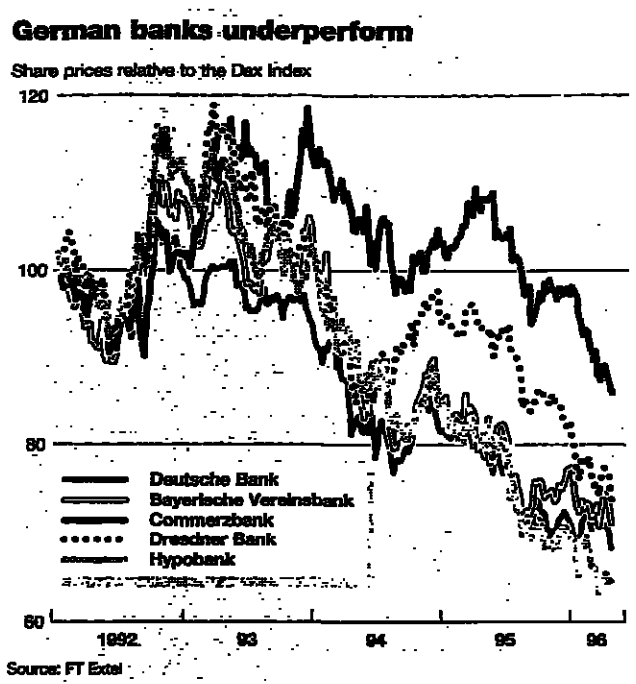
But the events in Switzerland showed the need for German banks to reinforce their competitive position. Spearheaded by Deutsche Bank, they have been moving into investment banking and asset management. Deutsche Bank plans to raise its spending on the investment banking side to DM700m this year as Deutsche Morgan Grenfell's deal-making expertise and trading systems are developed further. Mr Kopper intends investment banking eventually to provide a third of profits.

Banks are also striving to satisfy their domestic customers and trim their high domestic cost base by moving deeper into electronic banking. Vereinsbank has just opened its Advance Bank to appeal to customers wanting sophisticated cash management and mutual fund advice without the inconvenience of going into a branch.

Other big banks have also gone down the direct banking route, although Dresdner Bank is waiting to see how the market develops. "They certainly have a concept in the drawer and I am certain they will do it," says Mrs Winkler. "But they will wait until the time is ripe." Dresdner is concerned that the costs of acquiring new direct banking customers, who can easily switch loyalties, outweigh the advantages.

Whichever combination of electronic services, investment banking activities and corporate finance and treasury business German banks choose, costs will remain high. Banks are trying to rein back spending growth, weighing the benefits of innovation against the need for cost control.

By embracing the idea of shareholder value, they have committed themselves to keeping this balance as fine as possible. Investors will watch closely to see they do not trip.



How the big German banks fared last year

	Operating profits* DM bn	%	Net income DM bn	%
Deutsche Bank	4.24	+17	2.10	+24**
Dresdner Bank	1.99	+22	1.21	+17
Commerzbank	1.45	+109	0.98	-7
Bayerische Vereinsbank	1.38	+30	0.66	+16
Bayerische Hypo Bank	1.30	+17	0.68	+30

* after risk provisions ** on IAS (International accounting standards basis) Source: banks

Lawyers strive to keep parts of Bremer afloat

By Michael Lindemann in Bonn

Bremer Vulkan, Germany's largest shipbuilder, yesterday said it was bankrupt after it failed to reach an agreement with creditors.

However, lawyers who have been trying to keep the 102-year-old company afloat since February said three ships were still being built at yards in Bremen and Bremerhaven, the two north German towns where the group is based, and that they were also in talks to build further ships which could be built by parts of the group not yet bankrupt.

Meanwhile the city state of Bremen, which had extended guarantees of DM900m ($587m) to the company because it was the region's biggest employer, yesterday warned that DM300m of those loans might not be recovered.

Bremen is already the most heavily indebted of Germany's 16 *Länder* or states. A consortium of more than 30 banks, led by Commerzbank, Dresdner Bank and Bremer Landesbank, is owed a further DM2.9bn.

Mr Jobst Wellensiek, the lawyer who has been handling the rescheduling of the company's debts, said Bremer Vulkan had not been able to meet the conditions of the *Vergleich*, which requires a company to pay back 35 per cent of what it owes within 18 months.

Bremer Vulkan would only have been able to pay back 10 per cent of its debts in that period, Mr Wellensiek said, adding that the company had assets of DM1.11bn and liabilities of about DM2.5bn.

The bankruptcy affects the group's headquarters in Bremen and three subsidiaries – Vulkan Schiffbau Verbund, Vulkan Werft and Schichau Seebeckwerft – which together employ about 4,200 people.

There is a possibility a number of other shipbuilding subsidiaries, including Lloyd Werft and Geestemetallbau, could survive, according to another lawyer handling the *Vergleich* for these companies.

Mr Wellensiek said he was also talking to a number of companies about the sale of Atlas Elecktronik, the Bremer Vulkan electronics subsidiary.

Mr Udo Wagner, who took over as Bremer Vulkan chief executive in February, yesterday left the group, saying there was nothing more he could do now that bankruptcy proceedings had been opened.

Poland to cut coal production by 18%

By Christopher Bobinski in Warsaw

The Polish government yesterday approved a coal industry restructuring programme that is aimed at cutting output from last year's 135m tonnes to 110m tonnes in the year 2000 while increasing productivity by 25 per cent by the end of the century.

The plan, for what is now Europe's largest coal producer, also means the loss of 80,000 jobs in an industry that expects to be employing 174,000 people within five years.

The move is to be underpinned by 4.5bn zlotys ($1.8bn) worth of subsidies over this period, said Mr Klemens Scierski, the industry minister. The funds are to go on new equipment, and to cover the costs of up to 20 pit closures. The industry also hopes to cap its debt at its present 8bn zlotys.

Mr Jerzy Markowski, the deputy industry minister responsible for mining, is promising a return to profitability by 1998 for the industry, which is expecting to report a 740m zlotys loss this year.

At the same time the government has told the industry that domestic coal prices should rise no faster than inflation.

BAT advances 10% helped by financial side

By Roderick Oram, Consumer Industries Editor

BAT Industries reported underlying first quarter profit growth of 10 per cent with its tobacco businesses performing slightly worse than forecast and its financial services marginally better.

Including a £34m gain on the sale of a Chilean food business, pre-tax profits rose 16 per cent to £600m. "This is a very steady start to 1996," said Mr Martin Broughton, chief executive. Some analysts slightly shaved their year-end forecasts to about £2.55bn, against normalised profits of £2.44bn.

Details of a previously announced reorganisation of its financial services arm, including Allied Dunbar, Eagle Star and Farmers, was likely to emerge in the second half, Mr Broughton said.

Financial services trading profits rose 2 per cent to £255m with general insurance, life and investment businesses slightly ahead. Good growth from Farmers in the US compensated for lower UK profits from Eagle Star (£31m, down 23 per cent) and Allied Dunbar (£46m, down 15 per cent).

Eagle Star's underwriting loss doubled to £47m mainly because of bad weather and competition in car insurance. An £18m rise in investment returns to £72m, however, softened Eagle Star's profits fall.

Allied Dunbar's new business premiums rose 31 per cent as confidence among consumers and distributors continued to recover gradually. Total premium income was up 16 per cent at £402m.

Tobacco trading profits were up 9 per cent at £358m thanks to cigarette volumes rising 4 per cent and exports 6 per cent.

Profits at Brown & Williamson, its US subsidiary, were up 9 per cent to £156m but its market share slipped one percentage point to 17.5 per cent.

BAT said it was experiencing no adverse impact from tobacco litigation in the US. Its proposed sale of minor brands to Lorillard, however, has been blocked by US regulators.

Profits in Germany were hurt by increased marketing expenditure and falling volumes. Other, lower markets included Russia and Hungary. Profits in Brazil were slightly lower at £25m.

On the positive side, Australia was beginning to recover, export volumes to China were up by £1bn and Asian markets generally grew well.

Advance limited by £5.9m restructuring charge

Acquisitions behind Danka's rise to £53.9m

By Geoff Dyer

Acquisitions helped Danka Business Systems, the fast-growing office equipment supplier, to improve annual profits by 19 per cent from £45.4m to £53.9m ($81m). Turnover jumped 54 per cent to £793m (£516m), with about 50 acquisitions the group made over the year adding £183m to sales.

The shares, which rose strongly before the results, fell 6p to 792p, although the figures were in line with forecasts. Analysts said there had been some profit-taking.

Operating profits increased 38 per cent to £69.2m (£50.3m), £15.9m of the rise coming from acquisitions including October's £109m purchase of Netherlands-based Infotec.

Profits were held back by a £5.9m exceptional charge for restructuring recently acquired international businesses and a further £1.2m charge for the early repayment of borrowings.

Mr Mark Vaughan-Lee, chairman, said there was still considerable scope for further acquisitions which would add at least 15 per cent to annual turnover for the next three years. The group's market share was only 6 per cent in the UK, 3-4 per cent in North America and 2 per cent in continental Europe, he said.

The group has drawn $110m (£72.8m) from a new $400m borrowing facility negotiated in February. Due to goodwill write-offs from acquisitions, it had net assets at the year end of £11.8m (£24.6m). Under US accounting rules, where goodwill is written off through the profit and loss account, net earnings increased 16 per cent to $45.2m ($39m).

PROFILE

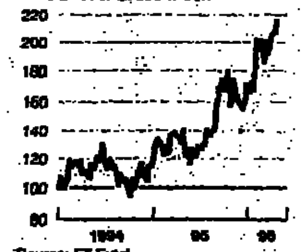
DANKA BUSINESS SYSTEMS

Market value: £1.73bn Share price: 792p -6p

	1992	1993	1994	1995	1996
Turnover	£115m	£186.3m	£347.2m	£515.7m	£793.0m
Pre-tax profit	£10.8m	£17.5m	£32.0m	£45.4m	£60.9m
Earnings per share*	6.7p	10.6p	11.6p	16.8p	21.5p
Dividend per share*	0.9p	1.1p	1.5p	1.8p	2.2p

*1992 & 93 figures restated to reflect 4-1 share split in July 1993

SHARE PRICE relative to the FT-SE-A All-Share Index



Source: FT Extel

Mark Vaughan-Lee, chairman

Pet Plan sold to Cornhill for £32m

By Ralph Atkins, Insurance Correspondent

The two founders of Pet Plan, who each invested £250 in the animal health insurer 20 years ago, have sold the group for £32.5m ($49m).

Ms Patsy Bloom, the former secretary who founded Pet Plan, and business partner Mr David Simpson each realised about £16m as a result of the sale to Cornhill Insurance, the UK subsidiary of Allianz, the large German insurer.

The deal follows of two decades of galloping growth for Pet Plan, the UK's largest horse insurer, after Ms Bloom spotted an opportunity for providing protection against high veterinary bills.

Pet Plan has 400,000 policyholders, covering dogs and cats as well as horses. Its premium income is about £40m.

The sale came as Churchill, the UK telephone-based motor and household insurance arm of Swiss insurer Winterthur, and Direct Line, the telephone-based company, announced plans to enter the animal insurance market.

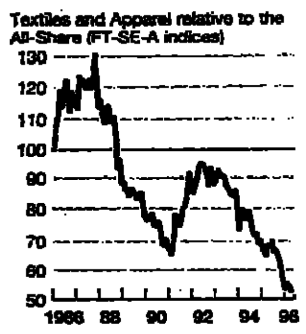
LEX COMMENT

UK textiles

Yesterday's profits warnings from Courtaulds Textiles, its second in five months, was depressingly familiar. Over the past 10 years, investors in textiles have lost their shirts. The sector has underperformed the market average by nearly 60 per cent. The market capitalisation of all 60-odd quoted textile stocks now adds up to only £4.6bn – the size of one middle ranking FT-SE 100 company. The reasons are not hard to find. Clothing consumption has declined as a proportion of disposable income, from 7 per cent in 1975 to less than 5 per cent now: and clothing prices have lagged behind inflation over the same period.

UK textile industry

Textiles and Apparel relative to the All-Share (FT-SE-A indices)



Source: Datastream

Competition from countries with lower labour costs has steadily intensified and last year the industry had to cope with unusually warm weather and wild swings in raw material prices.

That does not mean there are no textile companies in which it is worth investing. Those, like Dewhirst, Claremont and Sherwood, which have been fleet of foot in moving production offshore while cutting costs in the UK have consistently produced returns on capital of 20 per cent or better. But the sector's performance has been dragged down by the bigger companies – Coats Viyella, Courtaulds Textiles and Dawson International – which have been much slower to react. Dewhirst and Sherwood source nearly 50 per cent of their lingerie and garments from overseas. For Courtaulds, the comparable figure is 12 per cent and at Coats it is even lower. With the threat of a minimum wage and the gradual phasing out of quotas on imports, the big UK manufacturers have their work cut out for them.

Courtaulds Textiles warns as US sales fall

By Motoko Rich

Shares in Courtaulds Textiles, the UK's second largest clothing and fabric manufacturer, plunged more than 10 per cent yesterday as the group warned of a severe drop in US sales would cause interim profits to fall "substantially below" last year's level.

Analysts cut their 1996 forecasts from £45m to £40m as the group, which suffered a 12 per cent fall in 1995 pre-tax profits to £40.4m, told its annual meeting that sales in the US were down 30 per cent year-on-year because of destocking. The US business was likely to make a "small loss" in the first half.

The shares fell 45p to 373p.

The group said lace markets in continental Europe were softer than expected.

Margin pressure from raw material price rises in 1994 and 1995 were forcing it to follow rivals in raising the proportion of garments made outside the UK in the lower-wage economies of Asia and North Africa.

Lex, Page 23

REPUBLIC NEW YORK CORPORATION
SAFRA REPUBLIC HOLDINGS S.A.

Consolidated Statements of Condition and Summaries of Results

These statements and summaries represent the consolidated accounts of Republic New York Corporation and its wholly owned subsidiaries and of Safra Republic Holdings S.A. and its wholly owned subsidiaries. Republic New York Corporation owns 49.2% of Safra Republic Holdings S.A., which is accounted for by the equity method.

	REPUBLIC NEW YORK CORPORATION March 31,		SAFRA REPUBLIC HOLDINGS S.A. March 31,	
	1996	1995	1996	1995
	(In thousands of US$ except per share data)			
Assets				
Cash and due from banks	$ 747,767	$ 808,158	$ 36,176	$ 52,561
Interest-bearing deposits with banks	6,003,656	8,489,948	5,777,815	6,131,528
Precious metals	1,145,745	1,493,440	—	—
Investment securities	19,301,429	11,426,425	7,956,072	5,628,582
Trading account assets	3,580,673	4,310,232	139,025	215,515
Federal funds sold and securities purchased under resale agreements	890,924	2,399,383	—	—
Loans, net of unearned income	11,062,712	9,057,636	1,423,509	1,302,712
Allowance for possible loan losses	(339,209)	(318,138)	(129,537)	(137,321)
Loans, (net)	10,723,503	8,739,498	1,293,972	1,165,391
Other assets	4,750,562	4,681,131	473,443	392,953
Total assets	$ 47,144,259	$ 42,348,215	$ 15,676,503	$ 13,586,530
Liabilities:				
Total deposits	$ 29,106,509	$ 23,301,948	$ 12,077,857	$ 10,310,536
Trading account liabilities	3,157,109	4,135,576	93,215	157,655
Short-term borrowings	4,053,311	4,458,989	1,367,562	1,046,829
Other liabilities	3,892,478	3,621,327	472,332	325,504
Long-term debt	1,499,037	1,767,119	175,000	430,000
Subordinated long-term debt and perpetual capital notes	2,406,463	2,406,279	—	—
Shareholders' Equity				
Cumulative preferred stock	575,000	672,500	—	—
Common stock and surplus, net of treasury shares	843,891	693,224	889,232	905,042
Retained earnings	1,702,801	1,533,943	601,076	526,639
Net unrealized appreciation (depreciation) on securities available for sale, net of taxes	(92,340)	(242,690)	229	(115,675)
Total shareholders' equity	3,029,352	2,656,977	1,490,537	1,316,006
Total liabilities and shareholders' equity	$ 47,144,259	$ 42,348,215	$ 15,676,503	$ 13,586,530
Book value per share	$ 44.03	$ 37.97	$ 84.65	$ 74.07
Client portfolio assets held in custody			$ 7,369,467	$ 5,679,515
Net income, for the three months ended	$ 99,592	$ 87,513	$ 44,019	$ 39,354
Net income per common share (primary)	$ 1.64	$ 1.48	$ 2.50	$ 2.22
Average common shares outstanding (primary)	56,021	52,302	17,608	17,753

Risk-Based Capital Ratios

As of March 31, 1996, Republic New York Corporation's risk-based core capital ratio was 13.40% (estimated) and total qualifying capital ratio was 22.90% (estimated.) The ratios include the assets, risk-weighted in accordance with the requirements of the Federal Reserve Board specifically applied to Republic New York Corporation on a fully consolidated basis, and capital of Safra Republic Holdings S.A. Total consolidated assets under these requirements exceeded US$ 60 billion and total consolidated capital, including minority interest and subordinated debt, exceeded US$ 6 billion.

Republic New York Corporation
Fifth Avenue at 40th Street
New York, New York 10018

Safra Republic Holdings S.A.
32, boulevard Royal
L-2449 Luxembourg

Banking Locations
Copenhagen, Geneva, Gibraltar, Guernsey, London, Lugano, Luxembourg, Milan, Monte Carlo, Moscow, Paris, Zurich, Beverly Hills, Cayman Islands, Los Angeles, Mexico City, Miami, Montreal, Nassau, New York, Toronto, Buenos Aires, Montevideo, Punta del Este, Rio de Janeiro, Santiago, Beirut, Beijing, Hong Kong, Jakarta, Manila, Perth, Singapore, Sydney, Taipei, Tokyo

Shareholders protest about arms sales

Eggs fly as BAe wins change to voting rules

By Tim Burt

British Aerospace, the aircraft and defence equipment manufacturer, yesterday won approval for controversial plans to change its shareholder voting rules amid chaotic scenes as peace protestors disrupted its annual meeting.

Although the AGM ended with eggs being thrown at directors, minor scuffles and a bungled attempt to make a citizen's arrest of the board – the company claimed it had achieved its main aim of persuading shareholders to back its call for card votes at all future meetings.

BAe said the proposal – which gives it the authority to withhold a vote on the company's report and accounts – was supported by more than 90 per cent of the shareholders that voted.

The company pushed through the plan after giving undertakings to Pirc, the corporate governance consultancy, that it would continue to put its report and accounts to the vote "while that remained best practice".

Pirc expressed reservations about the proposals, but said it had advised its clients to back BAe's plan after the company promised to publish in advance any substantial shareholder amendments to its resolutions in future, and offered to reinstate an annual vote on directors' fees.

The corporate governance issues were overshadowed at yesterday's AGM by protests at the group's arms sales, particularly to Saudi Arabia and Indonesia.

Calls for BAe to abandon trade with such countries culminated when about half a dozen demonstrators tried to storm the directors' platform at London's Queen Elizabeth II conference centre.

As security staff ejected a number of protestors, another group set off rape alarms and eggs were thrown at the platform.

Earlier, Mr George Galloway, the Labour MP, accused Mr Dick Evans, BAe's chief executive, of taking part in a conspiracy that could have led to the kidnap or murder of Mr Mohammed Al-Masaari, the London-based Saudi dissident.

He claimed that Mr Evans was implicated in a campaign against Mr Al-Masaari by a leaked memo from Vickers, the defence group, which showed BAe's anxiety over the dissident's activities.

Mr Evans refused to comment directly on the Vickers memo. But he refuted Mr Galloway's allegations.

Bright start for forex on Internet

By Philip Gawith

A new service offering live foreign exchange prices on the Internet yesterday attracted about 700 inquiries on the first day of operation.

It is the first time that real time exchange rates have been available on the Internet.

Mr Peter Cruddas, managing director of Currency Management Corporation, which has launched the service with Information Internet, said: "We offer real time prices to anybody, anywhere in the world, 24 hours a day."

The service is free, in the belief that it will generate business for CMC, a market-maker in foreign exchange and bullion. The software can either be obtained on a disk or downloaded directly from the Internet. Initially, 12 currencies will be shown.

Within a few weeks, it will be possible for clients who have opened margin accounts with CMC to trade on screen.

The $1,200bn a day global foreign exchange market is dominated by wholesale participants – companies, investors, banks and speculators. High street retail business is only a small part. Mr Cruddas says his service should appeal to the intermediate market. "There is a huge market worldwide for people who want to trade foreign exchange as a speculative or investment vehicle."

He believes small investors can use the Internet to start trading foreign exchange with the ease they trade stocks and bonds. In the US shares can be traded by exchanging e-mail messages. In the UK, the Electronic Share Information group has plans to set up a share market on the Internet.

Unbroken growth takes Sage to expected £16m

By Alan Cane

Sage, the Newcastle-based accounting software house, performed to market expectations in the first half of the year, with strong growth in both revenues and profits.

The company's reputation for unbroken growth remained intact with pre-tax profits up 37 per cent to £16.1m ($24m) for the six months to March 31.

Revenues grew 42 per cent to £71.8m (£50.6), while earnings per share grew rose 33 per cent to 9.92p (7.46p). The interim divided goes up 10 per cent to 0.88p a share (0.80p).

The shares fell 24p to 435p, but analysts attached little significance to the movement. Mr David Goldman, chairman, said the accounting software sector had remained stable and predictable despite substantial change in the PC business.

Sage is the UK's leading developer of business accounting software for personal computers. It has subsidiaries in France and in the US and is looking to expand further in both regions through acquisition.

France generates more revenues than the UK, £33.8m compared with £27.1m, but is only two thirds as profitable.

Margins were substantially improved at Ciel and Saari and a third French software house, Sybel, was acquired in November. Mr Goldman pointed out that in France the winter is the strongest trading period and that the French businesses could be expected to generate the greater part of their annual profits in the first half of the year.

The US operations made £1.9m on revenues of £10.9m, but are showing little growth.

JOHNNIC

JOHNNIES INDUSTRIAL CORPORATION LIMITED
(Incorporated in the Republic of South Africa – Reg. No. 01/00429/06)
("Johnnic" or "the Company")

RESULTS OF ELECTION TO RECEIVE AN INTERIM DIVIDEND INSTEAD OF THE CAPITALISATION AWARD AND AN ELECTION TO SUBSCRIBE FOR NEW SHARES

The right of election to receive an interim dividend instead of an award of capitalisation shares ("the Capitalisation Award") and the right of election by those shareholders electing the dividend *to apply the dividend in subscribing for new Johnnic shares ("the Subscription") made to ordinary* shareholders registered at the close of business on Friday, 22 March 1996 ("the record date"), closed at 14.00 on Friday, 26th April 1996. The weighted average traded price of Johnnic shares on The Johannesburg Stock Exchange for the three days ended 25 April 1996 was R55.26. Accordingly, the award of capitalisation shares and the subscription for new shares was determined as a ratio of 0.343829 new shares for each 100 shares held on the record date.

Elections to receive the interim dividend of 18 cents per share in respect of the year ending 30 June 1996 instead of the Capitalisation Award were received in respect of 86 742 679 shares. Accordingly, an interim dividend of 18 cents per share was declared on 7 March 1996 on 86 742 679 ordinary shares in respect of the year ending 30 June 1996. Elections to apply this dividend in subscribing for new shares in Johnnic were received in respect of 60 095 257 of these shares. An amount of R10 817 146.26 was therefore applied in terms of the Subscription. Accordingly, 426 980 new fully paid Johnnic ordinary shares of 10 cents each have been allotted in terms of the Capitalisation Award and the Subscription and the issued share capital of Johnnic has been increased to 151 582 940 ordinary shares.

The listing of 426 980 ordinary shares in Johnnic will commence on The Johannesburg Stock Exchange from the commencement of business today.

Share certificates and cheques in respect of the interim dividend and fractional payments will be posted to members today.

For and on behalf of the board

P F Retief (*Chairman*)
V G Bray (*Chief Executive*)

Johannesburg
2 May 1996

WOOLWICH
- Building Society -

£200,000,000
Floating rate notes
due 1998

Notice is hereby given that the notes will bear interest at 6.17031% per annum from 30 April 1996 to 31 July 1996. Interest payable on 31 July 1996 will amount to £155.10 per £10,000 note and £1,551.01 per £100,000 note.

Agent: Morgan Guaranty Trust Company

JPMorgan

CENTRALE NUCLEAIRE EUROPEENNE A NEUTRONS RAPIDES S.A. - NERSA
FRF 400.000.000
GUARANTEED FLOATING RATE NOTES DUE 1997
ISIN CODE : FR0008818728
For the period April 30, 1996 to July 31, 1996 the new rate has been fixed at 3,93421% P.A.
Next payment date: July 31, 1996
Coupon nr : 28
Amount : FRF 200,57 for the denomination of FRF 20 000
FRF 1 002,85 for the denomination of FRF 100 000
THE PRINCIPAL PAYING AGENT
SOCIETE GENERALE BANK & TRUST
LUXEMBOURG

Sir Alastair's tunnel vision

Andrew Taylor and Geoff Dyer on Eurotunnel's feared chairman

Negotiating with Sir Alastair Morton is like dealing with Tomás de Torquemada, the feared 15th century head of the Spanish Inquisition, according to construction companies and banks.

In an argument, the Eurotunnel co-chairman displays the same fanatical conviction, and being on the receiving end of one of his blunt verbal assaults has been likened to being put on the rack.

The mention of Sir Alastair's name still raises the hackles of contractors who dealt with him during the tunnel's construction. It is no surprise, then, that some of Eurotunnel's bankers are reported to be fed up with his aggressive negotiating tactics and would like to see the back of him.

Bankers close to the negotiations say that the grumblings have been limited to a few institutions and that there has been no concerted campaign yet to unseat Sir Alastair.

Prompted by persistent speculation, National Westminster Bank denied on Tuesday that one of its senior bankers was leading an attempt to unseat Eurotunnel's co-chairman.

The issue is not a new one. With Sir Alastair due to stand down in October, several bankers have argued over the last year that they should be negotiating with a chairman who will be with the company in the long term.

A conspiracy theory among some bankers even suggests that Eurotunnel has been fanning the recent reports of disgruntled bankers, so that Sir Alastair appears as defender of shareholders' rights.

If anybody has been wrong-footed by the speculation it is unlikely to have been Sir Alastair, who has proved astute in his handling of the media since he joined Eurotunnel in 1987 to rescue the project.

He was always swift to remind construction companies that their contracts prohibited them from talking to press and television, as he fired off another salvo of public criticism highlighting their failure to build on time and to budget.

Now bankers have become irritated by what they regard as provocative public comments made by Sir Alastair, who last week blamed them for slow progress in debt renegotiations when announcing a £925m loss for 1995.

Yet even some of his fiercest critics admit that the project would never have been completed without him.

Senior management was in disarray when he arrived. The construction team was embryonic and there were few detailed designs for the project. Institutional investors were threatening to snub vital share issues without which bank loans would have collapsed.

That these hurdles were overcome owed much to Sir Alastair's tireless efforts to persuade international institutions and banks that the tunnel was viable and that he could deliver it.

Construction costs subsequently soared as designs were refined and increasingly rigorous safety requirements imposed. He accused contractors and others of not delivering what they had promised.

At various stages he threatened to sue the contractors, the British and French governments, the countries' state-owned railways and railway rolling stock suppliers.

Mr Joe Dwyer, chief executive of the Wimpey construction group, wryly commented: "Surely we could not all have been in the wrong."

Sir Alastair, in spite of a massive cost over-run, seems to have been considered by shareholders and banks to have got the best deal possible in the circumstances. Otherwise he would surely have been removed long ago.

Ashley Ashwood
Alastair Morton: probably got best possible deal for shareholders

None of the contractors have made much profit from the job. Most say they will do little better than break even.

Shareholders may continue to value Sir Alastair's tenacity and fighting ability as he now seeks to renegotiate the terms of some £8.4bn of bank debt. Most analysts believe that some form of debt-for-equity swap is inevitable, which would substantially dilute existing shareholdings.

Those on the receiving end say Sir Alastair's negotiating style incorporates his legendary blunt speaking, a prodigious memory for minute detail and an over-weening confidence in his own arguments. He is also very articulate and can be charming.

He disconcerts many people. "He will fight extremely aggressively until a cause is lost and then will suddenly concede, and all will be warmth and sunshine again. You are left wondering what all the row was about," said one contractor.

The depth of any current discontent with Sir Alastair will be apparent when the company meets the instructing group of banks – the 26 biggest banks in the syndicate – on Friday.

Even if Sir Alastair survives the present whispering campaign, Eurotunnel has to find a successor by the autumn.

According to some banks, now that the tunnel is up and running, the company should adopt a less hostile approach to its business relationships. Sir Alastair's gung-ho attitude is no longer required, they say.

However, others disagree, arguing that Eurotunnel still needs a forceful personality at the helm.

"The debt rescheduling is only one of several key issues facing the group. Once that is sorted, it still has deal with the ferries and the railways."

The United Mexican States Floating Rate Privatization Notes Due 2001

The applicable rate of interest for the period May 1, 1996, through and including July 31, 1996, to be paid on August 1, 1996, a period of 92 days, is 6.29688%. This rate is 13/16% above the offered rate for three-month deposits in U.S. Dollars which appeared on the display designated as the British Bankers Association's Interest Settlement Rate (5.48438%) as quoted on the Dow Jones/Telerate Monitor® as Telerate Screen No. 3750 as at 11:00 A.M. (London Time) on April 29, 1996.

The above rate equates to an interest payment of U.S.D. 16.0920 per USD 1,000.00 in principal amount of Notes.

BANCO NACIONAL DE MEXICO, N.Y.

April 29, 1996

ENTE NAZIONALE PER L'ENERGIA ELETTRICA
LIT 500,000,000,000 FLOATING RATE NOTES DUE 2000

In accordance with the provisions of the Notes, notice is hereby given as follows:

Interest period:	30th April 1996 to 30th October 1996
Interest payment date:	30th October 1996
Interest rate:	8.75% per annum
Coupon amounts:	LIT 222,396 per Note of LIT 5,000,000 LIT 2,223,958 per Note of LIT 50,000,000

AGENT BANK
BANQUE INTERNATIONALE A LUXEMBOURG

RESULTS

		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Dividends: Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
BAT Inds	3 mths to Mar 31	5,856	(5,638)	600♥	(516)	11.8	(9.9)	-	-	-	-	24
Carr's Milling	6 mths to Mar 2	42.4	(40.1)	1.53	(1.33)	14.4†	(12.9)	2.5	June 5	2	-	8.5
Danka Business	Yr to Mar 31	793	(515.7)	53.9♠	(45.4)	19†	(16.8)	1.08	July 25	0.9	2.16	1.8
Dares Estates	Yr to Dec 31	7.89	(5.07)	3.29♥	(0.2L)	0.87	(0.35L)	-	-	-	-	-
Fairbriar	Yr to Dec 31	13.9	(21.4)	1.52L♠	(2.3L♥)	7.75L	(12.11L)	nil	-	nil	-	nil
Hydro Intl	Yr to Dec 31	2.29	(5.34)	2.22L♠	(0.48)	14.25L†	(3.873)	-	-	-	-	-
Jourdan (Thomas)	Yr to Dec 31	23.3	(23)	0.53	(3.2L♠)	1.3	(19.4L)	0.75	-	0.75	1.25	1.25
MMT Computing	6 mths to Feb 29	8.26	(6.42)	2.37	(1.39)	13	(7.4)	2.7	July 1	1.8	-	6.2
Sage	6 mths to Mar 31	71.8	(50.6)	16.1♠	(11.7)	9.92	(7.46)	0.88	June 24	0.8	-	2.4
Shiloh	Yr to Mar 30	28.1	(27.1)	0.841♥	(0.584♠)	11.64	(4.55)	2.85	June 20	2.75	3.85	3.75

Investment Trusts		NAV (p)		Attributable Earnings (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Albany	Yr to Feb 29	167.8	(136.92)	0.565	(0.438)	5.64	(4.36)	3.35	July 4	2.9	4.8	4.25
Finsbury W'wd Phar	Yr to Mar 31	146	(-)	0.050	(-)	0.3	(-)	0.25	July 31	-	0.25	-
Fleming Far Eastern	Yr to Mar 31	393	(342.1)	2.04	(2.46)	1.35	(1.62)	1.3	July 12	1.6	1.3	1.6
Murray Enterprise	6 mths to Mar 31 ★	143.4	(117.73)	0.369	(0.234)	1.52	(0.97)	0.825	July 1	0.75	-	2.35

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. ♠After exceptional charge. ♥After exceptional credit. †On increased capital. ★ Comparatives restated.

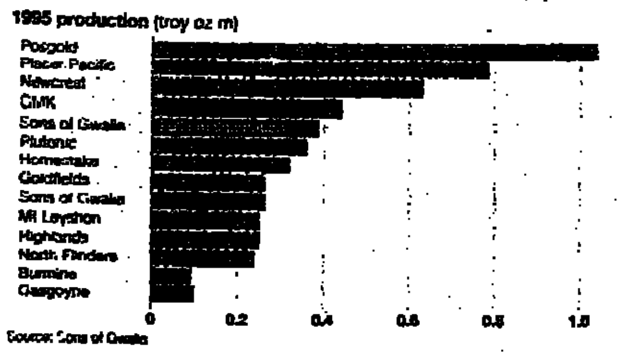
COMMODITIES AND AGRICULTURE

Mergers lift Sons of Gwalia into gold index

By Kenneth Gooding, Mining Correspondent

Australian gold producers

1995 production (troy oz m)



Source: Sons of Gwalia

Only 14 months ago Sons of Gwalia was – in production terms at least – one of the also-rans among Australian gold miners. Its main claim to fame was that it was the first gold mining company in the world to start seriously hedging its production.

Three quick deals since then have propelled SoG into fifth place among Australian gold producers and a place in the Financial Times Gold Mines Index. Its annual gold production has jumped from well under 200,000 troy ounces in 1994-95, to an annual rate of 450,000 ounces and the company will be included in the FT index from tomorrow.

This fast-track entry to the index follows a three-way amalgamation: SoG has merged with Burmine, another Western Australian gold miner, and also gained control of Gasgoyne Gold Mines. The three all have operations in the highly prospective Marvel Loch-Southern Cross region of Western Australia. Mr Jim Ainsworth, SoG's chairman, says combining production, reserves and resources from six mines and three processing centres in the region should result in greater operational efficiency and reduced costs.

However, nobody at SoG expects the three-way amalgamation to be quite as profitable as the deal in March last year that moved the company into the top ten Australian producers. SoG paid A$22.8m for the Marvel Loch and Southern Cross gold mines, bought from Reynolds Metals, the US aluminium group that was making a strategic withdrawal from Australian gold to concentrate on its core business. The acquisition bought with it A$7m of tax losses which SoG could use, so the net cost was A$16m. SoG recovered that in one year.

SoG has transformed prospects for Marvel Loch by paying A$2.5m for land surrounding the mine and that way removing a severe constraint on its future physical development – previously there was not enough room to slope the walls of the open pit at a convenient angle. Mr Ainsworth says Marvel Loch can now be developed into Australia's second biggest open pit (after the Big Pit at Kalgoorlie), 1.5km long, 300m wide and eventually 350m deep.

He sees output from Marvel Loch alone moving up from 115,000 ounces a year to 170,000 in two years time and suggests that SoG's total gold output will rise to "well over 500,000 ounces" by 1998-99.

Burmine's Copperhead mine is only 70km away from Marvel Loch and Mr Ainsworth says there are several high grade areas suited to open pit mining between them. Yilgarn Star mine, half-owned by Gasgoyne, is 17km from Marvel Loch. Mr Ainsworth hopes that arrangements can be made with Coeur d'Alene Mines, a US company that owns the other half of Yilgarn, to get the maximum benefits from combining mining and exploration efforts in the area.

SoG was founded in 1984 when a small group of investors led by Mr Peter Lalor, the company's managing director, and his brother, Chris, now executive director responsible for legal and commercial affairs, decided to redevelop as an open pit the old Sons of Gwalia underground mine near Leonora in Western Australia. Even after being mined for 100 years, the SoG mine still can look forward to at least another five years with annual production of about 120,000 ounces.

SoG started hedging its output from the start. Today it has 1.5m ounces, or 30 per cent of the old SoG company's reserves, hedged. It will collect an average of US$500 an ounce for all gold it produces until June 1998.

The company's aggressive exploration efforts – costing A$13m last year – has also enabled it to build the biggest land holdings in two of the most prospective gold areas in Australia – Leonora-Laverton as well as Marvel Loch-Southern Cross and one of the biggest in a third, in the Tanami desert of the Northern Territory.

Indonesians to join iron ore and coal project in Australia

By Nikki Tait in Sydney

Indonesian investors – including Krakatau Steel, the large government-owned steel group – have agreed to join the South Australian Steel and Energy project that is looking at a US$500m development of iron ore and coal deposits in the state's north, about 100km from Coober Pedy.

If successful, the ambitious SASE joint venture would establish a new industry in South Australia.

The SASE plan was formally inaugurated last year when three partners signed a detailed joint venture agreement. These were Meekatharra Minerals, the Australian-listed exploration group; Ausmelt, a listed smelting technology group; and the South Australian government.

The deal gave Meekatharra and Ausmelt equal stakes of 40 per cent in the project, with the state government holding the remaining 20 per cent. At the time, the companies involved said that they were talking to other potential investors, both domestic and overseas.

This week the partners announced that PT Maritosa Coalindo, a privately-owned resources company, had agreed to subscribe for a 10 per cent equity stake in the project, at a cost of US$5m, with the option of a further 5 per cent for an initial US$2.5m, exercisable by October.

Meanwhile, Krakatau Steel has agreed to provide engineers to help establish and run a demonstration plant. PT Puma Sentana Baja, a 100 per cent-owned subsidiary of Krakatau's pension fund has agreed to purchase 1m tonnes of pig iron a year from the proposed commercial project.

Mr Neill Arthur, Meekatharra's general manager, said that the joint venture was still talking to other potential partners, both within Australia and internationally.

The aim is to build a demonstration plant over the next four months, to test the technical and commercial viability of Ausmelt's pig-iron making technology. A full feasibility study is then due to be completed by the second quarter of 1997. The joint venture partners have already mooted a stock market float, should the project be given the go-ahead and major fund-raising become necessary.

The partners said this week that discussions were under way to site the plant within the shell of an empty power station building at Port Augusta, owned by the state electricity monopoly.

The project is aimed at capitalising on growing Asian demand for steel and steel-making materials. Although production of pig iron would be the main objective in the project's initial stages, the partners have mooted a wider range of products in the longer term.

Amax's Alaskan and Russian projects face steep costs rises

By Kenneth Gooding

Amax Gold of the US is facing steep cost increases at the two projects that it is counting on to put it among the world's big gold producers.

The company says that the cost of developing its Fort Knox gold project in Alaska has jumped by more than 40 per cent compared with its original projections, from US$256m to $370m. In addition, the Kubaka project in Russia is now expected to cost 25 per cent more than previously estimated: $228m instead of $182m.

When both projects are under way, the company expects to have annual production of more than 700,000 ounces of gold with an average cash cost "in the low $200 an ounce range". Last year output from its four present mines totalled 238,000 ounces at a cash cost of $326 an ounce.

Amax is 51 per cent-owned by Cyprus Amax Minerals and is in the process of acquiring Cyprus's stake in the Kubaka venture. It is now evaluating the impact of the cost increase on the planned acquisition.

Finance for the Kubaka project, located about 1,000km north-east of Magadan in far eastern Russia, has been arranged with some development banks, including the US Overseas Private Investment Corporation, and Amax is also exploring various methods of funding the increased cost.

Cyprus owns 50 per cent of the Kubaka project, with Russian interests owning the rest. Production, at an average annual rate of about 300,000 troy ounces and a cash cost of under $200 an ounce, is scheduled to start next year.

Amax explains that the causes of the rise in costs at Kubaka include delays to the commencement of the project, logistics and freight costs, higher than expected labour costs and tax and design changes.

The increased cost of the Fort Knox project, expected to produce an annual 350,000 ounces at a cash cost of $215 an ounce from early next year, arose from a delayed start, "unexpected geotechnical conditions," design changes and higher labour, freight and engineering costs.

Traders show they care

By Laurie Morse in Chicago

In the first initiative of its kind, derivatives traders around the world will donate a portion of today's trading proceeds to the international relief agency, CARE, to fight global poverty. Twenty of the world's futures and options exchanges will lead the effort, pledging a dollar amount to CARE based on the number of transactions made on their trading floors today.

From Toronto to Tokyo, brokerage houses, banks, and individual traders will also make volume-related donations in a multi-tiered effort that is expected to raise at least $1m. A final tally of donations will be announced on May 10.

While futures traders in the US and Europe have a history of local philanthropy, this is the first time the industry, known for its global reach, has worked together for the benefit of an international agency. In addition to Europe and the US, exchanges in Canada, Japan, Singapore, South Africa, and Australia are participating.

"CARE is a particularly good fit [with the futures industry]" said Mr John (Jack) Sandner, chairman of the Chicago Mercantile Exchange and Chairman of CARE's World Trading Day. "CARE is a global organisation, and it allows us as futures traders to invest in the future of people whose lives are most at risk."

CARE executive Ms Lynn Allen, who is directing World Trading Day activities, said: "With government funding for world relief dwindling, private philanthropy becomes even more critical. This event, which links the success of each exchange's volume to the success of people in need, goes beyond local corporate giving".

Australian meat reform planned

By Nikki Tait

Australia's federal government is to set up a taskforce to overhaul Australia's large but ailing meat industry.

Announcing the inquiry yesterday, Mr John Anderson, the new primary industries minister, said that there was urgent need to reform in the industry and that the three statutory bodies that played a role in the sector – the Meat Industry Council, the Meat Research Corporation and the Australian Meat and Livestock Corporation – should be streamlined.

"There's a whole range of industry matters that need to be addressed that run the whole gamut of activity, from farm through to freight," he said. The taskforce is expected to report within a few months.

Australian producers have struggling in the face of the glut of US beef, which has driven down prices, and the increasingly aggressive export focus by US farmers. Higher feedgrain prices have compounded their problems.

Pulp market slide reversed

By Robert Gibbens in Montreal

Many leading international forest products groups have posted a US$60 a tonne increase in northern softwood pulp transaction prices to about $580, effective from June 1, reversing the fall from a peak $1,000 last October to the current $520.

Stone-Consolidated, Georgia Pacific and Stora are leading the move, say market analysts. A sudden increase in demand for top quality northern pulp has also extended to US southern pine pulp, for which $540 is being asked for June delivery, up from $480, they say.

White papers, including some key business papers, went up from $700 a short ton to $740 on average on April 22 under the leadership of International Paper and other companies have followed.

Linerboard prices are also coming off the floor, with many north American producers posting a level of $380 a short ton, up from $330. But newsprint remains weak because of high North American publisher stocks.

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE

(Prices from Amalgamated Metal Trading)

■ ALUMINIUM, 99.7 PURITY ($ per tonne)

	Cash	3 mths
Close	1601-02	1633-34
Previous	1598-99	1630-31
High/low	1559/1547	1638/1623
AM Official	1595.5-96	1628-28.5
Kerb close		1635-35.5
Open int.	208,973	
Total daily turnover	54,532	

■ ALUMINIUM ALLOY ($ per tonne)

	Cash	3 mths
Close	1340-50	1380-85
Previous	1335-45	1375-80
High/low		1380/1372
AM Official	1340	1375-80
Kerb close		1377-78
Open int.	5,412	
Total daily turnover	2,215	

■ LEAD ($ per tonne)

	Cash	3 mths
Close	808-10	799-800
Previous	800-2	793-4
High/low	807/805.5	802/790
AM Official	805-5.5	794-5
Kerb close		801-2
Open int.	35,568	
Total daily turnover	5,812	

■ NICKEL ($ per tonne)

	Cash	3 mths
Close	7945-55	8045-50
Previous	7890-900	7990-95
High/low		8200/7840
AM Official	7845-50	7948-49
Kerb close		8180-85
Open int.	38,408	
Total daily turnover	14,541	

■ TIN ($ per tonne)

	Cash	3 mths
Close	6540-50	6555-60
Previous	6460-70	6480-85
High/low		6580/6450
AM Official	6500-10	6510-20
Kerb close		6580-85
Open int.	18,668	
Total daily turnover	4,486	

■ ZINC, special high grade ($ per tonne)

	Cash	3 mths
Close	1026.5-27.5	1052-53
Previous	1029.5-31.5	1055-57
High/low	1023	1052/1040
AM Official	1023-24	1048-49
Kerb close		1050-51
Open int.	72,460	
Total daily turnover	23,819	

■ COPPER, grade A ($ per tonne)

	Cash	3 mths
Close	2698-703	2607-08
Previous	2688-73	2602-03
High/low	2677	2611/2587
AM Official	2676-78	2588-89
Kerb close		2606-07
Open int.	173,802	
Total daily turnover	80,117	

■ LME AM Official £/$ rate: 1.4945

LME Closing £/$ rate: 1.4951

Spot: 1.4951 3 mths: 1.4932 6 mths: 1.4920 9 mths: 1.4905

■ HIGH GRADE COPPER (COMEX)

	Sett price	Day's change	High	Low	Vol	Open int
May	122.80	+1.75	123.00	120.50	2,234	9,260
Jun	122.15	+1.70	122.15	121.00	522	2,880
Jul	120.80	+1.45	120.80	118.75	8,672	23,955
Aug	119.30	+1.30	119.00	118.20	25	633
Sep	118.20	+1.35	118.30	117.30	1,318	4,169
Oct	116.95	+1.20	-	-	1	501
Total					12,851	51,471

PRECIOUS METALS

■ LONDON BULLION MARKET

(Prices supplied by N M Rothschild)

Gold(Troy oz)	$ price	£ equiv	SFr equiv
Close	393.30-393.60		
Opening	391.00-391.50		
Morning fix	391.00	261.14	486.12
Afternoon fix	392.30	261.97	489.59
Day's High	393.90-394.40		
Day's Low	391.00-391.50		
Previous close	391.40-391.80		

Loco Ldn Mean Gold Lending Rates (Vs US$)

1 month	4.33	6 months	3.80
2 months	4.20	12 months	3.75
3 months	4.10		

Silver Fix	p/troy oz.	US cts equiv.
Spot	355.85	532.50
3 months	360.55	538.95
6 months	365.30	545.50
1 year	374.55	558.35

Gold Coins	$ price	£ equiv.
Krugerrand	390-393	261-263
Maple Leaf	402.45-404.95	
New Sovereign	91-94	61-63

Precious Metals continued

■ GOLD COMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
May	393.3	+1.4	-	-	-	-
Jun	394.9	+1.4	396.2	392.6	28,233	100,602
Aug	397.3	+1.4	398.5	395.8	918	20,773
Oct	399.7	+1.5	400.0	399.1	40	5,526
Dec	402.1	+1.5	403.2	400.6	3,559	27,280
Feb	404.5	+1.5	-	-	539	5,180
Total					35,086	205,858

■ PLATINUM NYMEX (50 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Jul	406.0	+2.4	407.8	403.0	1,957	19,921
Oct	408.9	+2.4	410.5	408.5	75	3,279
Jan	411.7	+2.4	-	-	1	910
Apr	414.4	+2.4	-	-	2	1,318
Total					2,035	25,428

■ PALLADIUM NYMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Jun	133.25	+1.90	134.25	132.00	1,603	5,419
Sep	134.40	+1.85	-	-	305	2,671
Dec	135.50	+1.70	135.50	134.50	45	197
Total					1,953	8,287

■ SILVER COMEX (5,000 Troy oz.; Cents/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
May	537.6	+8.5	540.0	530.0	2,882	3,896
Jun	540.1	+8.5	542.5	542.5	14	4
Jul	542.5	+8.5	545.0	534.0	20,024	64,806
Sep	547.5	+8.5	549.0	539.0	644	13,517
Dec	554.8	+8.5	556.0	547.0	127	9,462
Mar	562.4	+8.5	564.0	564.0	56	3,444
Total					23,745	99,613

ENERGY

■ CRUDE OIL NYMEX (42,000 US galls. $/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Jun	20.72	-0.48	21.20	20.47	60,451	102,267
Jul	19.89	-0.36	20.23	19.75	36,051	68,726
Aug	19.26	-0.23	19.47	19.06	9,823	50,844
Sep	18.80	-0.21	18.90	18.68	2,362	35,520
Oct	18.50	-0.18	18.67	18.52	2,472	24,822
Nov	18.45	-0.17	18.53	18.38	1,503	16,897
Total					119,862	403,844

■ CRUDE OIL IPE ($/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Jun	18.75	-0.27	18.85	18.58	14,436	55,406
Jul	18.15	-0.25	18.26	18.00	8,564	61,791
Aug	17.70	-0.20	17.81	17.60	2,242	22,229
Sep	17.44	-0.11	17.53	17.30	1,776	12,264
Oct	17.24	-0.08	17.26	17.11	1,373	7,777
Nov	17.11	-0.04	17.11	16.96	774	4,782
Total					32,138	200,381

■ HEATING OIL NYMEX (42,000 US galls; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
May	49.15	-	49.15	49.15	11,798	1,017
Jun	54.30	-0.79	56.20	53.30	17,272	25,494
Jul	52.75	-0.49	52.95	52.00	2,645	15,049
Aug	52.20	-0.49	52.69	51.75	1,650	12,732
Sep	52.70	-0.24	52.94	52.15	254	6,636
Oct	53.15	-0.28	53.15	52.75	154	3,961
Total					34,887	92,301

■ GAS OIL IPE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	165.25	-1.25	165.75	161.75	4,575	10,700
Jun	164.75	-1.25	164.75	161.00	4,182	13,074
Jul	163.25	-0.75	163.25	160.75	685	6,563
Aug	162.25	-1.00	162.25	160.25	329	6,162
Sep	163.00	-0.75	163.00	162.00	165	3,276
Oct	164.00	-0.75	162.75	162.50	65	1,619
Total					11,102	51,381

■ NATURAL GAS NYMEX (10,000 mmbtu; $/mmbtu.)

	Latest price	Day's change	High	Low	Vol	Open int
Jun	2.315	-0.009	2.240	2.185	6,516	30,083
Jul	2.215	+0.007	2.220	2.175	2,651	21,024
Aug	2.200	+0.009	2.210	2.180	1,268	16,376
Sep	2.185	+0.012	2.180	2.185	1,214	14,626
Oct	2.190	+0.015	2.197	2.170	375	11,505
Nov	2.225	+0.010	2.240	2.220	310	8,164
Total					14,468	144,442

■ UNLEADED GASOLINE NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Jun	71.60	-	77.70	71.50	15,041	3,064
Jul	67.10	-2.38	70.35	66.55	24,011	33,569
Aug	64.10	-1.70	65.50	63.60	5,081	17,837
Sep	61.00	-0.90	62.40	60.50	2,155	11,026
Oct	58.40	-0.30	58.65	57.60	134	3,853
Dec	55.40	-0.30	55.40	55.40	514	1,283
Total					47,023	74,601

GRAINS AND OIL SEEDS

■ WHEAT LCE (£ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	131.50	+2.85	131.75	130.50	98	565
Jul	133.50	+2.75	134.00	132.50	126	1,561
Sep	116.55	+0.80	-	-	-	399
Nov	118.00	+0.65	118.20	117.50	203	2,911
Jan	119.75	+0.85	119.80	-	40	664
Mar	121.75	+0.85	-	-	-	140
Total					467	6,682

■ WHEAT CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
May	676.00	+34.50	678.00	652.00	1,406	1,884
Jul	597.00	+30.00	597.00	551.00	12,834	69,689
Sep	588.00	+30.00	588.00	541.00	3,994	14,582
Dec	593.00	+30.00	593.00	569.00	5,430	17,468
Mar	578.00	+30.00	578.00	549.00	243	1,263
Jul	526.00	+30.00	526.00	495.00	55	118
Total					23,531	97,762

■ MAIZE CBT (5,000 bu min; cents/56lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
May	488.00	+25.50	488.00	464.00	14,085	17,975
Jul	466.25	+14.25	467.50	446.00	85,636	165,834
Sep	374.25	+15.75	374.50	357.00	15,303	59,526
Dec	336.75	+8.25	337.00	326.25	31,591	134,898
Mar	343.00	+9.50	343.50	335.00	1,465	14,896
May	345.00	+10.00	345.00	338.00	215	1,439
Total					118,764	402,271

■ BARLEY LCE (£ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	114.90	+3.35	115.25	112.50	35	215
Sep	109.75	+1.00	109.00	109.00	4	59
Nov	110.85	-	-	-	-	87
Jan	113.15	-	-	-	-	41
Mar	115.15	-	-	-	-	-
Total					39	1,082

■ SOYABEANS CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
May	810.50	+23.25	811.00	794.00	4,960	9,735
Jul	817.50	+22.50	819.00	794.00	43,923	79,735
Aug	816.25	+22.50	817.00	798.00	3,238	11,383
Sep	796.00	+19.25	797.00	785.00	1,232	6,195
Nov	786.50	+18.00	786.00	764.00	22,708	69,345
Jan	790.50	+17.75	791.00	780.00	601	6,830
Total					81,975	191,887

■ SOYABEAN OIL CBT (60,000lbs; cents/lb)

	Sett price	Day's change	High	Low	Vol	Open int
May	27.86	+0.69	27.95	27.08	6,895	5,754
Jul	28.05	+0.71	28.08	27.34	14,411	52,970
Aug	28.15	+0.66	28.20	27.72	2,322	9,965
Sep	28.26	+0.66	28.25	27.90	335	4,089
Oct	28.26	+0.64	28.35	28.08	395	3,146
Dec	28.61	+0.58	28.65	28.22	3,059	16,916
Total					27,715	94,893

■ SOYABEAN MEAL CBT (100 tons; $/ton)

	Sett price	Day's change	High	Low	Vol	Open int
May	244.2	+8.4	248.5	243.5	9,051	7,086
Jul	253.1	+8.7	253.3	245.7	24,523	52,365
Aug	252.1	+6.5	253.3	248.2	3,889	11,920
Sep	249.0	+5.5	249.8	246.2	880	7,384
Oct	243.8	+5.0	244.2	240.0	370	3,238
Dec	243.6	+4.8	244.5	240.2	4,327	15,767
Total					45,896	100,319

■ POTATOES LCE (£/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	115.0	-19.0	126.0	115.0	7	72
Jun	225.0	-	-	-	-	-
Nov	82.5	-16.5	-	-	-	-
Mar	110.0	-	-	-	-	-
Apr	121.9	+1.5	124.0	122.0	76	909
Total					83	1,860

■ FREIGHT (BIFFEX) LCE ($10/index point)

	Sett price	Day's change	High	Low	Vol	Open int
May	1376	+8	1370	1365	30	800
Jun	1263	+10	1250	1250	14	481
Jul	1255	+5	1260	1259	17	1,624
Oct	1337	+7	1345	1340	21	1,213
Jan	1365	+30	-	-	-	57
Apr	1405	-	-	-	-	32
Total					62	4,723

	Close	Prev
BFI	1459	1458

FUTURES DATA

All futures data supplied by CMS.

Nuts and Seeds

Prices from Kenkko Group; US$ a tonne. Iranian pistachios 28/30 raw (in shell) naturally opened (round) 1995 crop 3,350 CFR/FOT MEP, 26/28 3,450 CFR/FOT MEP. US almonds (shelled) 23/25 NPSSR 1995 crop availability very short; rumours of new crop damage bring current level to 5,950; price idea for NPS 20/22 is 6,300 FAS California, down on lack of demand. US walnuts Jumbo Hartley in shell, 1995 crop 2,350 FCA Antwerp. Indian cashews ww, 1995 crop, W-320, 6,250 spot Europe, tight (new crop offers at 5,950). Turkish hazelnut kernels, 13/15 standard 1c, 1995 crop, 3,250 FOB MEP, April-June shipment; higher prices likely because of Turkish shippers selling short and having to fulfil earlier contracts. Chinese pine nut kernels; Chinese defaulting on contracts following price increase from 4,500 to 6,500; no Chinese supplies available.

SOFTS

■ COCOA LCE (£/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	1027	-6	1036	1020	168	2,450
Jul	1080	+19	1090	1058	2,326	25,920
Sep	1110	+17	1112	1078	1,342	46,044
Dec	1037	+19	1121	1088	1,431	26,498
Mar	1027	+17	1027	1004	1,780	38,489
May	1039	+19	1039	1016	87	10,308
Total					7,393	164,321

■ COCOA CSCE (10 tonnes; $/tonnes)

	Sett price	Day's change	High	Low	Vol	Open int
May	1375	+20	1385	1365	23	398
Jul	1388	+20	1390	1366	9,564	33,317
Sep	1397	+21	1400	1374	2,301	16,982
Dec	1407	+24	1407	1381	715	17,262
Mar	1412	+16	1412	1391	435	13,996
May	1431	+16	1437	1437	10	4,932
Total					12,865	97,529

■ COCOA (ICCO) (SDR's/tonne)

Apr 30	Price	Prev. day
Daily	1034.39	1047.44

■ COFFEE LCE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	1911	+8	1940	1911	1,204	3,591
Jul	1920	+9	1945	1915	1,266	16,152
Sep	1920	+10	1935	1920	355	5,734
Nov	1920	+10	1939	1912	462	3,221
Jan	1898	-22	1916	1900	410	1,492
Mar	1883	-4	1876	1860	243	664
Total					4,540	30,864

■ COFFEE 'C' CSCE (37,500lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
May	128.25	+3.15	128.10	126.00	153	956
Jul	127.60	+2.55	127.80	125.00	4,545	19,955
Sep	126.05	+2.50	126.50	124.30	735	4,757
Dec	124.30	+2.45	124.30	122.75	91	2,565
Mar	124.00	+3.45	124.00	122.50	19	616
May	123.25	+4.25	-	-	16	247
Total					5,858	29,167

■ COFFEE (ICO) (US cents/pound)

Apr 30	Price	Prev. day
Comp. daily	110.34	110.78
15 day average	108.33	107.84

■ WHITE SUGAR LCE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
May	356.7	-1.5	358.0	356.5	377	12,085
Aug	330.9	-0.9	333.0	331.5	156	5,220
Oct	322.3	-1.2	324.0	323.3	25	3,165
Dec	318.5	-1.8	321.5	318.7	67	2,865
Mar	320.0	-1.1	321.5	319.2	117	1,153
May	323.0	-0.8	324.0	323.5	69	359
Total					791	25,857

■ SUGAR '11' CSCE (112,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Jul	10.33	-0.06	10.48	10.31	18,669	59,539
Oct	10.40	-	10.46	10.38	5,371	33,094
Mar	10.45	-0.02	10.45	10.38	3,660	24,734
May	10.35	-	10.37	10.34	33	6,064
Jul	10.27	-	10.27	10.26	316	3,206
Oct	10.15	-	10.19	10.15	22	1,085
Total					21,426	131,358

■ COTTON NYCE (50,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
May	84.95	+1.85	84.95	83.45	67	240
Jul	86.35	+1.23	86.50	85.15	4,475	24,724
Oct	85.10	+1.15	85.10	84.00	421	3,421
Dec	83.58	+0.81	83.80	82.80	2,886	25,420
Mar	84.27	+0.77	84.35	83.70	219	2,969
May	84.90	+0.79	84.90	84.20	114	1,343
Total					8,187	58,136

■ ORANGE JUICE NYCE (15,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
May	130.05	-4.45	131.50	130.00	1,175	1,810
Jul	133.05	-1.20	133.75	130.05	1,314	14,852
Sep	131.85	-0.45	132.30	130.50	225	3,428
Nov	126.30	-0.25	126.50	[illegible]	[illegible]	1,051
Jan	125.75	+0.25	125.75	121.75	10	3,137
Mar	125.95	+0.20	-	-	1	256
Total					2,723	24,915

VOLUME DATA

Open interest and Volume data shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME and CSCE are one day in arrears. Volume & Open Interest totals are for all traded months.

INDICES

■ REUTERS (Base: 18/9/31=100)

May 1	Apr 30	month ago	year ago
2096.8	2109.9	2108.3	2322.7

■ CRB Futures (Base: 1967=100)

Apr 30	Apr 29	month ago	year ago
258.09	259.55	252.21	236.56

■ GSCI Spot (Base: 1970=100)

Apr 30	Apr 29	month ago	year ago
208.33	214.75	206.66	183.63

MEAT AND LIVESTOCK

■ LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Jun	58.250	+0.900	58.350	56.750	11,052	34,228
Aug	60.525	+0.775	60.600	59.200	5,457	24,201
Oct	62.675	+0.825	62.800	61.700	3,243	17,898
Dec	61.325	+0.725	61.400	60.500	2,178	10,425
Feb	61.950	+0.600	62.000	61.250	603	8,363
Apr	64.350	+0.425	64.400	63.875	120	1,551
Total					23,676	96,888

■ LIVE HOGS CME (40,000lb; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Jun	60.350	-0.600	60.500	59.200	5,021	17,035
Jul	58.075	+0.200	58.600	57.200	2,749	8,150
Aug	53.625	+0.350	53.900	52.650	1,349	5,363
Oct	48.425	+0.150	48.500	47.900	552	4,151
Dec	51.950	+0.675	52.000	51.550	274	3,941
Feb	72.850	+1.075	73.000	71.800	114	714
Total					10,128	40,057

■ PORK BELLIES CME (40,000lbs; cents/lb)

	Sett Price	Day's change	High	Low	Vol	Open int
May	89.225	+2.000	89.225	89.225	846	3,222
Jul	87.350	+2.000	87.350	87.350	1,485	5,518
Aug	84.725	+2.000	84.725	84.200	336	1,839
Feb	82.700	+2.000	82.700	82.700	53	449
Mar	84.500	+2.000	84.500	83.100	7	18
May	85.700	+2.000	85.700	83.650	8	48
Total					2,835	11,094

LONDON TRADED OPTIONS

Strike price $ tonne	Calls		Puts	
■ ALUMINIUM (99.7%) LME	Jun	Sep	Jun	Sep
1600	42	93	18	40
1700	6	45	81	90
1800	3	18	175	161
■ COPPER (Grade A) LME	Jun	Sep	Jun	Sep
2500	156	114	5	55
2600	76	65	25	103
2700	27	33	74	169
■ COFFEE LCE	Jul	Sep	Jul	Sep
1900	124	201	103	47
1950	102	181	131	80
2000	84	163	163	75
■ COCOA LCE	Jul	Sep	Jul	Sep
875	216	240	1	5
900	192	217	2	7
925	168	195	3	10
■ BRENT CRUDE IPE	Jun	Jul	Jun	Jul
1900	-	-	65	-
1950	-	-	-	-
2000	12	15	-	-

LONDON SPOT MARKETS

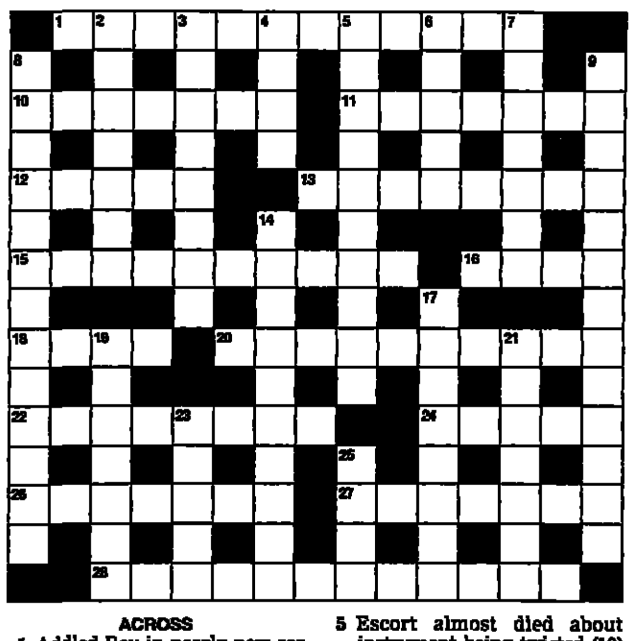
■ CRUDE OIL FOB (per barrel)		+or-
Dubai	$17.02-7.12x	-0.23
Brent Blend (dated)	$18.99-9.01	-0.51
Brent Blend (June)	$18.74-8.76	-0.52
W.T.I.	$20.79-0.80x	-0.515
■ OIL PRODUCTS NWE prompt delivery CIF (tonne)		
Premium Gasoline	$232-234	-2
Gas Oil	$165-166	-1
Heavy Fuel Oil	$104-106	
Naphtha	$192-194	-4
Jet fuel	$185-190	-2
Diesel	$167-168	-1.5
■ NATURAL GAS (Pence/therm)		
Bacton (June)	9.05-9.20	-0.275
Petroleum Argus. Tel. London (0171) 359 8792		
■ OTHER		
Gold (per troy oz)♣	$393.55	+1.95
Silver (per troy oz)♣	539.50c	+6.00
Platinum (per troy oz.)	$402.00	+1.25
Palladium (per troy oz.)	$131.50	+2.75
Copper	127.0c	
Lead (US prod.)	45.00c	
Tin (Kuala Lumpur)	16.20r	
Tin (New York)	303.50	-2.00
Cattle (live weight)	102.58p	-4.52*
Sheep (live weight)	183.45p	+3.88*
Pigs (live weight)	106.99p	+4.65*
Lon. day sugar (raw)	$364.00	-1.50
Lon. day sugar (wte)	$377.0	-0.50
Barley (Eng. feed)	114.40	
Maize (US No3 Yellow)	Unq	
Wheat (US Dark North)	Unq	
Rubber (Jun)♥	98.50p	
Rubber (Jul)♥	98.50p	
Rubber (KL RSS No1)	363.50m	
Coconut Oil (Phil)§	$830.0v	
Palm Oil (Malay)§	$560.0v	-5.0
Copra (Phil)§	$502.0v	-3.0
Soyabeans (US)	222.0v	
Cotton Outlook'A' index	81.55c	-0.40
Wooltops (64s Super)	430p	

£ per tonne unless otherwise stated. p pence/kg. c cents/lb. r ringgit/kg. m Malaysian cents/kg. z May. x June. v Apr/May. y Apr/Jun. ♥ London Physical. § CIF Rotterdam. ♣ Bullion market close. * Change on week. † Based on 1,441 head of pigs sold.

JOTTER PAD

CROSSWORD

No.9,058 Set by MUTT



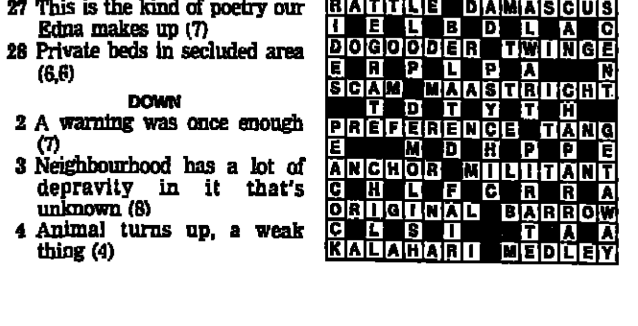
ACROSS

1 Addled Rev in nearly new car returning relative to Gateshead – it's traumatic (5-7)
10 With companion in second track is Miss du Bois from Tennessee (7)
11 Money back, river having eroded the fertiliser (7)
12 Snake in French tree (5)
13 Tear-jerkers put us off foolishly introducing daylight-saving (3-5)
15 For toothless old Sue, tune should be sprightly (10)
16 A woman's love for a great man (4)
18 An objection about the instrument (4)
20 As depicted in "The Return of the Native"? (10)
22 In a different manner, besides knowing (8)
24 Drank back at military headquarters .... (5)
26 .... left with one officer by the colonnade (7)
27 This is the kind of poetry our Edna makes up (7)
28 Private beds in secluded area (6,6)

DOWN

2 A warning was once enough (7)
3 Neighbourhood has a lot of depravity in it that's unknown (8)
4 Animal turns up, a weak thing (4)
5 Escort almost died about instrument being twisted (10)
6 During manic tussle stroke occurred (5)
7 A small thing for relative for Christmas (not to be opened) (7)
8 What the N. American Indian once had a go at making? (1,5,7)
9 Can't remember, me, being absent-minded (4-9)
14 By birth weight, a gem (10)
17 A capital fellow like Alfred Doolittle (8)
19 How sweet! BR arranged to put a loose cover on (7)
21 Fill as of old; one member allowed inside, that is (7)
23 When husband is returning late, starts to make a flurry (5)
25 Crow takes the game (4)

Solution 9,057



Italian futures jump on rating news

By Samer Iskandar in London and Lisa Bransten in New York

Most European markets were closed yesterday for the May Day holiday. Italian BTP futures however showed a very strong performance on hopes that the country's sovereign ratings might be raised.

US Treasuries also rose after the release of a National Association of Purchasing Management index showing that inflationary pressures in April were weaker than market participants had feared.

Italian BTP futures traded in London rose by almost a full percentage point in the afternoon while the underlying cash market was closed. Liffe's June BTP future had fluctuated in a narrow range of 113.8 to 114 for most of the session, but jumped to 114.80 soon after Moody's Investors Service said it was reviewing Italy's A1 sovereign rating, and settled at 114.64, up 0.32.

The rating agency said it might might raise Italy's rating after "an examination of ... the changes made in the country's underlying fiscal structure". Moody's said it would place particular emphasis on "the medium-term trajectory of government finance".

In the longer term, Mr Kirit Shah, chief market strategist at Sanwa International, believes a pause in the recent convergence of European high-yielding markets towards German yield levels is likely.

GOVERNMENT BONDS

"The Italian market, for example, is now pricing future interest rate cuts that still have to be seen", he said.

■ The German market was closed, but in London Liffe's June future on 10-year bunds settled at 96.92, down 0.41. The contract showed weakness in early trading, reaching an intra-day low of 96.72, but recovered in the afternoon in line with US Treasuries.

Ms Sharda Persaud, German economist at San Paolo Bank in London, said that "although market participants do not expect further rate cuts this year, bunds still have upside potential". She believes the Bundesbank will start reducing the repo rate again, possibly early in June.

■ UK gilts traded sideways in moderate volumes. Political uncertainty weighed on the market, as traders were reluctant to take positions before today's local elections. Liffe's June long gilt future closed at $106\frac{3}{32}$, unchanged.

■ US Treasury prices gained in early trading as the figure for manufacturing activity from the National Association of Purchasing Management came in ahead of expectations, but below Tuesday's figure from purchasing managers in the Chicago area.

Near midday, the benchmark 30-year Treasury was ⅜ higher at $88\frac{25}{32}$ to yield 6.871 per cent, while the two-year note was up $\frac{1}{32}$ at $99\frac{11}{16}$, yielding 6.027 per cent. The June Treasury bond future added $\frac{5}{32}$ to $109\frac{5}{32}$.

The yield curve that maps the yield spread between two-year notes and 30-year bonds flattened by 2 basis points to 84 points on the suggestion that national manufacturing activity was not as strong as the Chicago figures suggested. A flattening yield curve is generally interpreted as a sign that fears about inflation are easing.

The NAPM put manufacturing activity at 50.1, the highest it has been since the spring of last year, but below the 52 level the Chicago association reported on Tuesday. Economists had forecast a NAPM figure of 48.

Yesterday's figure was just above the threshold of 50 that is considered a sign of economic expansion.

There was little market reaction to news that the Conference Board's index of leading economic indicators rose 0.2 per cent, slightly below the 0.3 per cent many economists had expected. Trading was comparatively light as investors awaited tomorrow's key figures on employment levels in April.

Offering by the Halifax sells out in hours

By Conner Middelmann

The UK's Halifax Building Society had the eurobond stage to itself yesterday, with Japan and most of Europe closed for national holidays.

Undistracted by other offerings, UK fund managers – especially long-term investors such as life insurers and pension funds – snapped up the £300m 25-year subordinated bond offering, which sold out only hours after launch, lead manager SBC Warburg said.

"Halifax is a very strong name in the sterling market, they're a very rare issuer, and the pricing was fair," said a syndicate official at another house.

The bonds were priced at a spread of 100 basis points over gilts, which narrowed slightly after they were freed to trade. The pricing was tighter than comparable secondary subordinated bank bonds, but dealers said that was justified by the borrower's rarity value and strong credit standing.

It was the Halifax's first dated subordinated bond issue ranking as Lower Tier 2 capital since February 1992.

While new deals are likely to be thin on the ground this week, the market is preparing for more in coming weeks.

The Korean Development Bank is to hold European roadshows next week for a global bond, said to be around $750m of five-year or 10-year bonds via CS First Boston and Lehman Brothers.

Israeli officials will travel to London next week to select underwriters for the country's first eurobond, expected this summer. Israel is looking to raise $200m to $250m.

INTERNATIONAL BONDS

Mexican global bond swap draws a mixed response

By Lisa Bransten in New York and Conner Middelmann in London

Mexico's offer to exchange up to $2.5bn in outstanding Brady debt for a 30-year global bond drew a mixed response from global investors yesterday.

Mexico agreed to exchange $1.75bn in outstanding Brady debt for a 30-year dollar denominated global bond with a yield of 552 basis points over the US long bond. That is less than the $2.5bn maximum Mexico offered to exchange, and the yield was at the high end of expected pricing.

The global bonds receive interest of about 164 basis points more than Mexico's par Bradys at the close on Tuesday, but lose the 30-year zero-coupon US Treasury bonds that collateralised the Bradys in case of default, so the offer was viewed as a key test of demand for pure Mexican risk.

"It's not a failure, but it's not an outstanding success," said Ms Ingrid Iverson, emerging markets debt strategist at UBS Securities in New York. "It doesn't suggest that there is a huge pool of investors out there desperate to buy pure Latin 30-year risk."

Some, however, took as a favourable sign the fact that Mexico managed to sell even a more modest amount of long-term debt just 15 months after the botched devaluation of the peso sent it into financial crisis.

"The fact that they managed to get $1.75bn of pure Mexican 30-year debt into the market is a very positive statement in itself – there's no way that would have been possible six months ago," one syndicate official said. He reported some buying by emerging market fund managers and UK banks.

Mr Ali Naqvi, head of emerging market debt at Citibank Global Asset Management, said he was encouraged by the fact that a relatively large proportion of Bradys were exchanged by holders other than the Mexican government.

While the smaller than expected size and the high yield may cause the issues to weaken in the short-term, he said, in the long run it should be good for Mexico because it extends the duration of its debt, establishes a 30-year benchmark and frees up some of the collateral for other uses.

The new bonds immediately traded down to 92.25 from their offer price of 92.93, and then settled at about 92.60, but some attributed the decline to hedge funds that bought into the deal to "flip" them quickly in the secondary market.

Mr Martin Werner, director general of public credit in the Mexican finance ministry, said he was pleased with the auction, but that Mexico would not follow this deal with another exchange this year.

Catastrophe insurance loss bonds pioneered

By Richard Lapper

Benfield Ellinger, a London-based reinsurance broker, has linked up with AIG Combined Risks (AIGCR), the investment banking arm of American International Group, to place a portfolio of catastrophe insurance-linked bonds with a UK fund manager.

The fund manager is investing an amount understood to be around $10m with an offshore special purpose vehicle. This vehicle will in turn sell a loss warranty reinsurance contract to a reinsurance company.

The policy is triggered if catastrophic insurance losses in any one of five geographic areas – the US, Japan, Australasia, the Caribbean and western Europe – exceed a level stipulated in the contract.

Losses will be measured against the industry loss indices of Property Claims Services and Sigma.

All of the bond's principal, as well as the interest generated by it, is at risk in the event of a loss.

"This is a ground-breaking product which accesses a new source of capital for the reinsurance market," said Mr Matthew Harding, chairman of Benfield.

Mr Diego Wauters, president and chief executive of AIGCR, described the deal as a "pioneering transaction for the insurance and reinsurance markets".

Saint Gobain doubles credit facility to $1bn

By Antonia Sharpe

Saint Gobain, the French glass and construction materials group, has signed a $1bn seven-year syndicated credit facility, double the amount it was originally seeking.

Demand from banks wanting to be in the deal was such that $1.4bn was raised in general syndication, almost three times the initial target, but the company decided to limit the size of the facility to $1bn.

Including the three arrangers – ABN-Amro, Chemical and Deutsche Bank – 28 other banks participated in the loan, which will be used for general financing needs and will partly replace the company's existing bilateral lines.

The interest rate on the loan in years one to five is 12.5 basis points over Libor, rising to 15 basis points in the final two years.

Merck, the German pharmaceuticals company, is seeking to raise DM1bn in the syndicated loans market, via Deutsche Bank and Dresdner Bank. The seven-year facility will be launched into general syndication in the next few weeks.

NatWest Markets and Banco Santander have arranged a Pta17.1bn credit facility with a final maturity of 2010 to fund the construction and sale of 10 vessels to be built by the Spanish shipyard Astilleros de Huelva. The buyers of the vessels are Miltose and Marlbay, two Irish companies.

Egyptian offshore fund planned

By Roula Khalaf

Although the Egyptian stock exchange is the second largest Middle Eastern market open to foreign investors it has so far attracted little interest from institutional buyers.

HSBC James Capel is looking to change this with the launch of the first offshore closed-end fund to invest in Egyptian equities.

HSBC is attempting to raise between $50m and $100m from institutional investors in Europe, the US and the Middle East. The Egypt Investment Company will be listed on the London Stock Exchange and will be managed by Concord National, a joint venture between Concord Group, a US-based investment manager, and the National Bank of Egypt. A total of $20m is said to have already been committed by local investors.

The Egypt investment strategy is driven by the government's stated determination to speed up a privatisation programme that has been mired in bureaucracy for years.

Pressed by the International Monetary Fund, the newly appointed government issued in February a list of 80 companies worth over $4bn to be privatised this year.

Concord officials admit this target may be too ambitious and perhaps no more than 40 per cent of the companies will be sold, but insist that progress on the privatisation front is likely to be made at last.

Stocks on the Egyptian exchange trade at a cheap seven times earnings on average. But out of the 700 companies listed on the exchange, only 100 actually trade while 30 stocks represent over 50 per cent of the total $8bn in market capitalisation.

The market was down 19 per cent in 1995 and has lost over 5 per cent this year. But Concord officials say the market is unlikely to drop further.

They also play down concerns about Egypt's political risk – highlighted last month when Islamic militants gunned down 17 tourists outside a Cairo hotel.

The investment managers say that compared with the general volatility of the Middle East, Egypt is politically stable, with the National Democratic Party having consolidated its rule in the December 1995 parliamentary elections.

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

		Coupon	Red Date	Price	Day's change	Yield	Week ago	Month ago
Australia		10.000	02/06	107.9530	-0.630	8.79	8.78	8.94
Austria		6.125	02/06	0.0000	-	0.00	6.37	6.57
Belgium		7.000	05/06	0.0000	-	0.00	6.60	6.83
Canada *		8.750	12/05	0.0000	-	0.00	7.70	7.67
Denmark		8.000	03/06	104.9400	-0.300	7.28	7.23	7.61
France	BTAN	5.750	03/01	0.0000	-	0.00	5.53	5.94
	OAT	7.250	04/06	0.0000	-	0.00	6.41	6.73
Germany Bund		6.000	02/06	0.0000	-	0.00	6.31	6.48
Ireland		8.000	08/06	103.2600	-0.170	7.52	7.53	7.96
Italy		9.500	02/06	0.0000	-	0.00†	9.69	10.39
Japan	No 140	6.600	06/01	118.5760	+0.040	2.51	2.39	1.65
	No 182	3.000	09/05	97.2270	-0.170	3.39	3.33	3.21
Netherlands		6.000	01/06	97.8000	-0.220	6.31	6.27	6.52
Portugal		11.875	02/05	0.0000	-	0.00	8.91	9.65
Spain		10.150	01/06	0.0000	-	0.00	9.14	9.84
Sweden		6.000	02/05	0.0000	-	0.00	8.26	8.86
UK Gilts		8.000	12/00	102-11	-	7.38	7.42	7.38
		7.500	12/06	98-07	+1/32	8.03	8.01	8.08
		9.000	10/08	106-20	+5/32	8.14	8.11	8.18
US Treasury *		5.625	02/06	92-20	-2/32	6.66	6.53	6.28
		6.000	02/26	88-24	-3/32	6.89	6.79	6.62
ECU (French Govt)		7.500	04/05	0.0000	-	0.00	6.76	7.25

London closing, *New York mid-day. Yields: Local market standard.
† Gross (including withholding tax at 12.5 per cent payable by nonresidents)
Prices: US, UK in 32nds, others in decimal. Source: MMS International

US INTEREST RATES

Latest / Treasury Bills and Bond Yields

		One month	5.11	Two year	6.08
Prime rate	8¼	Two month	4.99	Three year	6.21
Broker loan rate	7	Three month	5.14	Five year	6.43
Fed.funds	5⅜	Six month	5.32	10-year	6.68
Fed.funds at intervention	-	One year	5.64	30-year	6.92

BOND FUTURES AND OPTIONS

France

■ NOTIONAL FRENCH BOND FUTURES (MATIF) FFr500,000 (Apr 30)

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Jun	123.56	123.58	-	123.74	123.46	74,174	147,834
Sep	122.10	122.10	-	122.24	122.10	1,904	10,114
Dec	120.86	120.90	+0.04	121.00	120.86	591	5,921

■ LONG TERM FRENCH BOND OPTIONS (MATIF) (Apr 30)

Strike Price	Calls Jun	Calls Jul	Calls Sep	Puts Jun	Puts Jul	Puts Sep
120	3.63	-	-	0.04	0.23	-
121	2.65	-	-	0.08	0.42	-
122	1.75	0.91	1.42	0.15	0.78	-
123	0.95	0.46	-	0.36	1.30	-
124	0.37	0.19	0.54	0.78	-	1.23

Est. vol. total, Calls 19,970 Puts 16,212. Previous day's open int., Calls 132,204 Puts 157,131.

Germany

■ NOTIONAL GERMAN BUND FUTURES (LIFFE)* DM250,000 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	96.93	96.92	-0.09	96.99	96.72	43471	196543
Sep	96.00	96.01	-0.09	96.04	95.87	251	9503

■ BUND FUTURES OPTIONS (LIFFE) DM250,000 points of 100%

Strike Price	Calls Jun	Calls Jul	Calls Aug	Calls Sep	Puts Jun	Puts Jul	Puts Aug	Puts Sep
9650	0.75	0.55	0.77	0.91	0.33	1.04	1.26	1.40
9700	0.46	0.37	0.58	0.70	0.54	1.36	1.57	1.69
9750	0.25	0.23	0.43	0.53	0.83	1.72	1.92	2.02

Est. vol. total, Calls 6049 Puts 4882. Previous day's open int., Calls 215655 Puts 168751

Italy

■ NOTIONAL ITALIAN GOVT. BOND (BTP) FUTURES (LIFFE)* Lira 200m 100ths of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	114.27	114.02	-0.30	114.81	113.68	17530	64025
Sep	113.60	113.35	-0.30	113.64	113.60	224	719

■ ITALIAN GOVT. BOND (BTP) FUTURES OPTIONS (LIFFE) Lira200m 100ths of 100%

Strike Price	Calls Jun	Calls Sep	Puts Jun	Puts Sep
11400	0.95	1.87	0.93	2.52
11450	0.71	1.65	1.19	2.80
11500	0.51	1.43	1.49	3.08

Est. vol. total, Calls 3073 Puts 5424. Previous day's open int., Calls 74123 Puts 90953

Spain

■ NOTIONAL SPANISH BOND FUTURES (MEFF)(Apr 30)

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Jun	98.60	98.83	+0.24	99.16	98.52	49,717	46,857

UK

■ NOTIONAL UK GILT FUTURES (LIFFE)* £50,000 32nds of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	106-00	106-03	-	106-07	105-24	34061	121728
Sep	-	105-03	-0-01	-	-	0	200

■ LONG GILT FUTURES OPTIONS (LIFFE) £50,000 64ths of 100%

Strike Price	Calls Jun	Calls Jul	Calls Aug	Calls Sep	Puts Jun	Puts Jul	Puts Aug	Puts Sep
106	0-53	0-51	1-10	1-28	0-47	1-45	2-04	2-17
107	0-25	0-31	0-51	0-63	1-19	2-25	2-45	2-57
108	0-10	0-17	0-34	0-45	2-04	3-11	3-28	3-39

Est. vol. total, Calls 1192 Puts 2970. Previous day's open int., Calls 38175 Puts 37460

Ecu

■ ECU BOND FUTURES (MATIF) ECU100,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Jun	91.86	91.76	-0.14	91.88	91.72	1,327	8,236

US

■ US TREASURY BOND FUTURES (CBT) $100,000 32nds of 100%

	Open	Latest	Change	High	Low	Est. vol.	Open int.
Jun	109-04	108-27	-0-10	109-05	108-19	328,034	341,011
Sep	108-09	108-10	-0-10	108-12	108-02	6,351	28,065
Dec	107-21	107-24	-0-12	107-24	107-19	673	5,476

Japan

■ NOTIONAL LONG TERM JAPANESE GOVT. BOND FUTURES (LIFFE) Y100m 100ths of 100%

	Open	Close	Change	High	Low	Est. vol	Open int.
Jun	117.84	-	-	117.92	117.72	1937	0
Sep	116.69	-	-	116.76	116.60	528	0

* LIFFE futures also traded on APT. All Open interest figs. are for previous day.

FT-ACTUARIES FIXED INTEREST INDICES

Price Indices UK Gilts	Wed May 1	Day's change %	Tue Apr 30	Accrued interest	xd adj. ytd		Low coupon yield May 1	Apr 30	Yr. ago	Medium coupon yield May 1	Apr 30	Yr. ago	High coupon yield May 1	Apr 30	Yr. ago
1 Up to 5 years (23)	122.05	-0.01	122.06	2.72	2.72	5 yrs	7.47	7.48	8.29	7.51	7.51	8.35	7.82	7.81	8.49
2 5-15 years (19)	145.70	-0.05	145.78	2.76	3.36	15 yrs	8.21	8.19	8.30	8.22	8.20	8.36	8.31	8.29	8.56
3 Over 15 years (9)	160.34	-0.30	160.83	3.31	3.48	20 yrs	8.28	8.26	8.29	8.26	8.25	8.38	8.34	8.33	8.51
4 Irredeemables (6)	184.75	-0.07	184.87	4.67	1.47	Irred.†	8.31	8.30	8.36						
5 All stocks (57)	141.44	-0.08	141.56	2.90	3.14										

Index-linked							Inflation 5% May 1	Apr 30	Yr. ago	Inflation 10% May 1	Apr 30	Yr. ago
6 Up to 5 years (1)	195.64	-0.03	195.69	0.12	4.43	Up to 5 yrs	2.60	2.57	3.29	1.21	1.16	1.83
7 Over 5 years (11)	187.22	-0.02	187.27	1.31	1.33	Over 5 yrs	3.71	3.71	3.74	3.51	3.50	3.55
8 All stocks (12)	187.28	-0.02	187.33	1.28	1.40							

Average gross redemption yields are shown above. Coupon Bands: Low: 0%-7¾%; Medium: 8%-10¾%; High: 11% and over. † Flat yield. ytd Year to date.

FT FIXED INTEREST INDICES

	May 1	Apr 30	Apr 29	Apr 26	Apr 25	Yr ago	High*	Low*
Govt. Secs. (UK)	92.47	92.57	92.71	92.76	92.73	92.09	96.34	91.97
Fixed Interest	112.72	112.78	112.83	112.32	112.36	110.92	115.23	110.74

* for 1996. Government Securities high since compilation: 127.4 (09/01/35), low 49.18 (03/01/75). Fixed Interest high since compilation: 133.87 (21/01/94), low 50.53 (03/01/75). Basis 100: Government Securities 15/10/26 and Fixed Interest 1928. SE activity indices rebased 1974

GILT EDGED ACTIVITY INDICES

	Apr 30	Apr 29	Apr 26	Apr 25	Apr 24
Gilt Edged bargains	98.2	80.4	97.6	120.0	108.3
5-day average	100.9	105.8	110.2	106.6	101.4

FT/ISMA INTERNATIONAL BOND SERVICE

Listed are the latest international bonds for which there is an adequate secondary market. Latest prices at 7:10 pm on May 1

	Issued	Bid	Offer	Chg.	Yield
[illegible]					

UK GILTS PRICES

[illegible]					

Other Fixed Interest

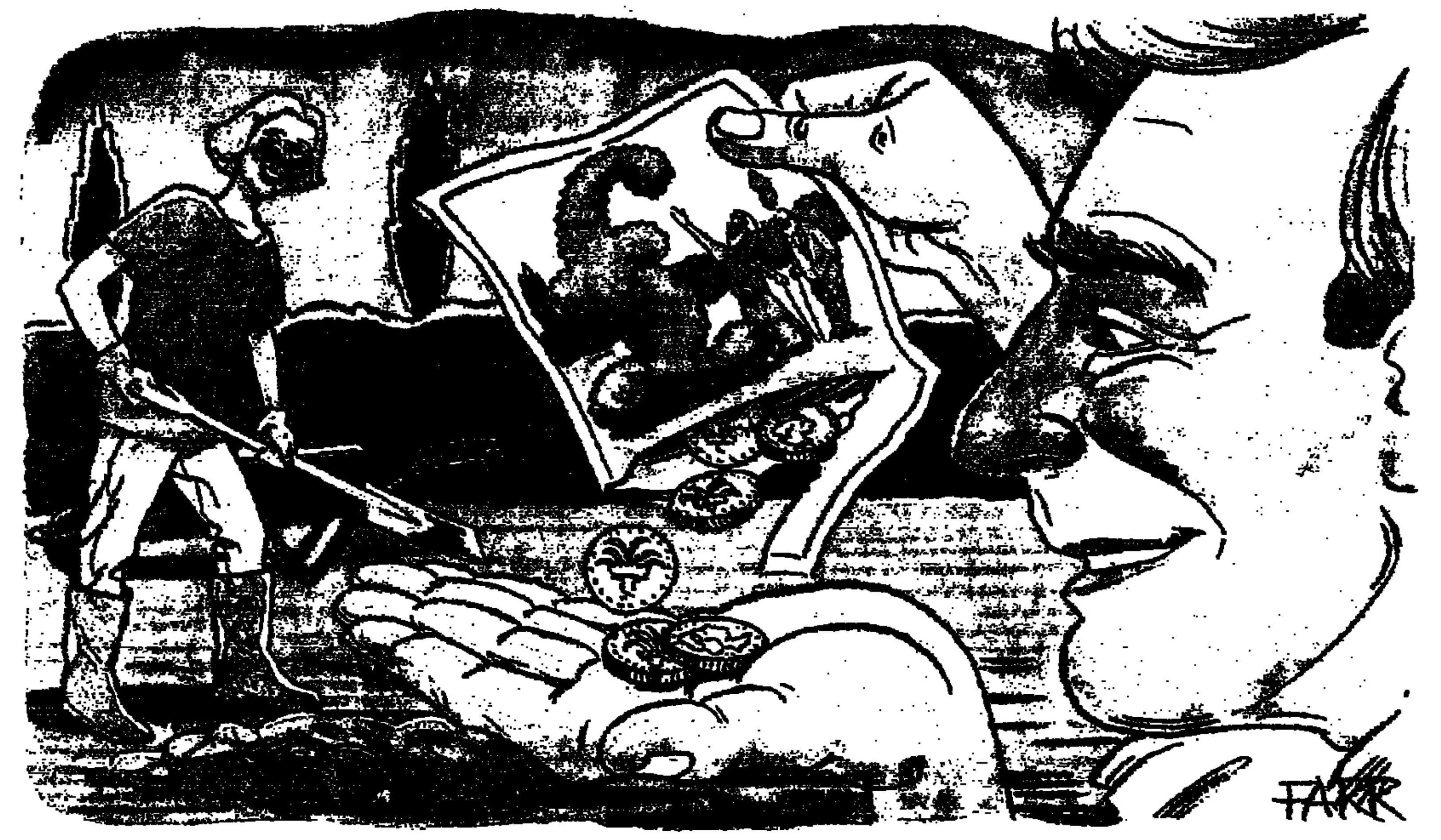
[illegible]					

PENSION FUND INVESTMENT

Editorial production: Jonathan Guthrie
Graphics: Robert Hutchison, Steven Bernard
Design: Frances Trowsdale

Pay now or suffer later

Funded plans could meet the world's growing pension costs, writes Barry Riley



In many countries around the world demographers are looking at projected population statistics over the next 20 to 50 years with sentiments varying from concern to alarm. Pay-as-you-go social security systems are buckling under the strain: for example, in the French civil service the number of active employees per pensioner is projected to fall from 2.5 to 1.4 by 2015.

Is the choice therefore between a ruinous reduction in benefits and a catastrophic increase in taxation? Not necessarily: an increased role for funded pension systems could help to close some of the gap. But it will depend on whether new pools of long-term capital, wisely invested, can serve to edge up economic growth rates and create more wealth to pay for future pensions.

The conditions could be coming into place, therefore, for substantial international growth in pension funds. But a number of very different models are on offer, with a variety of implications.

Ironically the best-established model of funded pension plan, the defined benefit occupational scheme, which has become widespread in the US and the UK, is actually in decline. Shrinking company workforces and cost-cutting employers have undermined their dominance.

There are some interesting perspectives on this in a round table discussion transcript produced by the UK performance measurement consultants World Markets. In Britain, WM's panellists point out, tensions are rising between the high investment return (that is, cost minimisation) objectives of sponsoring companies and the enhanced responsibilities of pension fund trustees under the Pensions Act 1995. Those tensions could become irreconcileable.

Other models could nevertheless generate the enormous volumes of capital required to finance future pensions. But there are three big obstacles:

- Nationalism. Governments are often anxious to prevent pension funds from investing overseas;
- Regulations. Pension funds are sometimes forced to provide cheap finance for governments, under the guise of prudential controls;
- Paternalism. Schemes run by employers often skew benefits and penalise groups such as mobile workers.

What are the models on offer? To begin with, much interest has been generated by the progress of the Chilean formula for the modernisation of social security.

Established in 1981 as a successor to a near-bankrupt pay-as-you-go arrangement, this system is now at a reasonably mature stage of development. It involves employees paying compulsory contributions of 10 per cent of earnings into 21 private sector investment institutions, or *administradores de fondos de pensiones* (AFPs).

Negative returns by these funds in 1995, gave the system a jolt, but in general the high savings ratio has supported a healthy economic growth rate. Funds may be transferred between different AFPs. But all operate under tight restrictions, including a requirement to invest at least 50 per cent of their assets in public sector bonds.

Another unconventional model which has attracted interest is Singapore's Central Provident Fund, which was set up while the island was under British rule back in 1955.

But with contributions at a massive 40 per cent of income, and investment limited to government debt and infrastructure projects, Singapore's all-embracing system has little appeal outside highly centralised states.

In the US there has been rapid progress by defined contribution schemes, company plans without any guaranteed level of pension, the latter depending entirely on the capital accumulated by each member. These schemes are likely to prove cheaper for employers than most other alternatives, and certainly involve less risk for them in the long term.

It is generally thought that many British companies will soon switch to defined contribution schemes, at least for new employees: Barclays Bank last month announced its intention to do so, for instance.

Defined contribution plans must follow a more cautious investment strategy than defined benefit counterparts. This is because individual members with finite – and possibly short – periods until retirement are less able to bear investment risk than future beneficiaries of a shared fund with an indefinite life span. More sophisticated structures, now allow members of defined contribution plans within a few years of retirement to opt separately for lower risk investments.

A variant of this structure is the employer-sponsored personal pension plan, the most successful example of which is the 401(k) plan which is growing so rapidly in the US. Here the individual often takes the investment decisions as well as the risks.

The accelerating flood of 401(k) money into equity mutual funds has boosted Wall Street in recent months but has also created anxiety about future instability should members switch their funds into bonds or money funds, perhaps in conditions of panic.

Any shift towards personal pension plans, either employer-sponsored or free-standing, would expand the role of retail investment institutions at the expense of the specialist institutional pension fund managers which have become so important in the US and the UK.

The institutions that would prosper in this environment would have to be well known to the public and have the systems to deliver a personal service, possibly including advice on investment switching as well as valuations and reporting.

In the US, for instance, this could be expected to lead to a reversal of the consultant-driven proliferation of investment boutiques which has been such a feature of the past twenty years. There could be a new burst of expansion for the big mutual fund and retail stockbroking groups. But such a structure would be inherently much more expensive.

In Australia, life assurance companies stand to benefit greatly from the introduction of mandatory contributions into approved pension plans, rising in stages to 12 per cent of pay (taking employer and employee contributions together).

The element of compulsion reflects official alarm at the future increase in the population of pensioners, and the potential build-up of the government's liabilities if individual citizens do not themselves save for their old age.

In the UK this question is also being actively debated, although it is something of a political hot potato in the run-up to the next general election, given that there is not much conceptual difference between a compulsory pension contribution and a tax.

Last year the Retirement Income Inquiry, a committee of experts backed by the National Association of Pension Funds, proposed a National Pension Scheme (NPS). This would provide for the 50 per cent of workers left outside the scope of existing occupational pension plans.

The NPS would establish Chilean-style designated fund management companies which would be required to operate at rock-bottom cost levels. They would compete for membership on the basis of investment performance much as institutional pension fund managers do now, but the relationships would be with individuals rather than with trustees.

At the WM Round Table the point was made that defined benefit pension schemes have generated very high returns because of their large exposure to equities. Defined contribution plans, even when they have very low costs, are likely to be less efficient at delivering future pensions.

The worry, perhaps, is that far too much of the world's burgeoning pension fund contributions will be channelled into government bonds. In many countries this will be a statutory requirement.

To the extent that these bonds simply finance current fiscal deficits they represent an extra tax burden on future citizens rather than real assets that could help to pay all those pensions in the 21st century. How much better it would be to put some privatised industries into their pensions pots. They should do more of it in Chile.

■ **Passive managers:** by Philip Coggan

More funds will succumb

Index funds can win more pension fund clients before natural limits restrict growth

It is a testimonial to the marketing skills of active managers that they have been able to hold their own in the face of competition from indexers.

The evidence would suggest that pension fund trustees should be using index managers more than they do. In UK equities, active managers have underperformed the FT-SE All-Share Index in eight of the last 10 years, although in three of those years (including 1995) the underperformance was only 0.1 per cent.

In world markets, figures from performance measurement company WM show that managers lagged the index in six of the last 10 years, notably in 1995 when they were heavily underweight in the fast-growing US market.

However the heavy weighting that UK managers tend to take in the Pacific region means that over the last five years as a whole they have actually outperformed the world index, thanks particularly to a good performance in 1993, when they beat the index by 11.3 per cent.

The record of active managers in recent years has improved, perhaps because there has been a tendency for funds to concentrate in the hands of the best of them. There may also be a sense in which trustees think they would be "giving up" on trying to get the best returns for their fund if they opted for passive management.

The proportion of the UK pension fund market run by index fund managers is around 15-20 per cent, compared with around 30 per cent in the US.

There is undoubtedly a natural limit on the proportion of funds that can be indexed. The intellectual argument in favour of indexation is based on efficient market theory; the thesis that the price of a commodity reflects all available news and that only future events, which by definition are unknown, can move prices.

To make the market efficient, there need to be plenty of active managers trawling the market for bargains. Once indexation predominates, markets would, by definition become inefficient, giving active managers scope to outperform.

Many investors reject the intellectual case for efficient markets, and it certainly has been possible to find anomalies – such as the outperformance of small companies or high-yielding stocks – which cast doubt on the theory. It is also difficult to deny, in the face of records such as Mr Warren Buffett's, that a few individuals have been consistently able to demonstrate an ability to beat the markets.

While it may be possible for investment managers to beat the market, it is not so easy for trustees to identify them in advance. "The justification for index-tracking is that, while skill does exist in the City, it cannot be reliably pre-identified," says Mr John Shuttleworth, actuarial partner at Coopers & Lybrand.

Index-tracking also has the advantage that its costs are always likely to be lower than those of active management. Active managers must recruit highly-paid staff and cover their expenses as they travel the country, or the world, interviewing companies. Second, an active manager will incur heavy transaction costs as he or switches between stocks in search of a winning formula. According to Mr Shuttleworth, the average active manager does about five times as many transactions as an indexer.

Korea: its inefficient markets create opportunities for indexers

Add in the fact that trustees can be assured of a decent performance from a tracker (they will not be top of the pack but, far more importantly, they will not be bottom either) and it seems likely that indexing will make further gains.

That would certainly seem to be the view of Barclays de Zoete Wedd Investment Management, which last year took over Wells Fargo Nikko Investment Advisors to create a group with some $250bn under management, including $200bn in indexed form.

Other managers noted for their strong bottom-up philosophies are having to move closer to the indexed route. Fidelity, the US fund management giant, continues to insist that stockpicking drives returns, but assures its institutional clients that its 10 largest positions will be no greater than 25 per cent of the group's "active money." The latter is defined as the difference between a stock's index weight and the actual weight in Fidelity's portfolio. Fidelity's aim is to provide superior returns while reducing volatility.

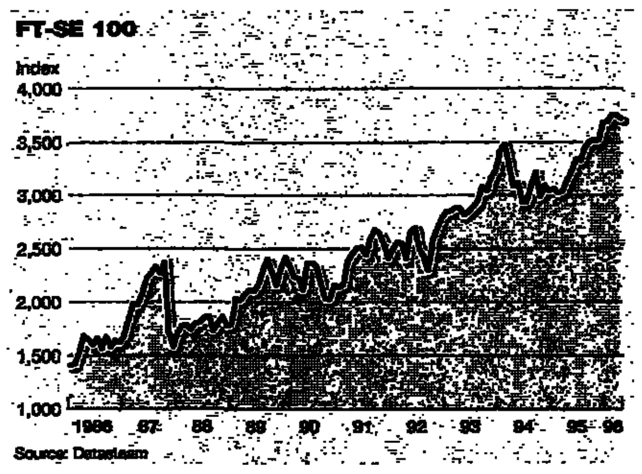
In the international context, the issue of index-tracking is tied up with a debate about the relative merits of balanced and specialist management. A fund could either match the world index, with accordingly heavy weightings relative to its peers in Japan and the US, or make its own asset allocation decisions, and use, where possible, index funds specific to each country.

But asset allocators do not have that impressive a track record, meaning that the gains from matching the indices can be lost by incorrect country selection. The answer to this problem may lie is some sort of mechanical rebalancing.

Passive managers are also at a disadvantage in inefficient stock markets, notably those of emerging countries. In Korea, for example, local investors are fixated on the par value of stocks and avoid highly-priced shares; as a result low-priced shares tend to have high price-earnings ratios and vice versa. Such markets create greater opportunities for active managers to beat the index.

The debate is certain to rage on for a while. And it is of far more than academic interest. Coopers & Lybrand's Mr Shuttleworth says that indexed funds have outperformed active managers by 0.5 per cent in the UK in the last 10 years. "This may look small, but if maintained indefinitely by a company whose actuary says an annual employer's contribution of 10 per cent of payroll is needed, the 10 per cent will fall to 8.5 per cent. At the profit and loss level, for many companies 1.5 per cent of payroll is serious money."

FT-SE 100



Source: Datastream

■ **Quantitative techniques:** by Barry Riley

UK resists quant invasion

The conservatism of pension fund trustees has limited the growth of these methods

Though the majority of quantitatively-managed portfolios are run passively – which means that they track various stock market indices – there are strong incentives for quant managers to get into the active management business, where fees can be much higher.

This is big business in the US, where pension plan sponsors are much readier to allocate money to non-traditional investment managers than in Europe. But in the UK, in particular, quantitative firms find it very difficult to persuade trustees that they should do something a little differently from their peers. "In some ways the UK is the toughest of the lot," says Ms Jennie Paterson of Barr Rosenberg European Management.

One quant firm, Panagora, which operates out of Boston and London, is currently trying to tackle this marketing blockage head on by launching a balanced product in the UK, called Structured Balanced Strategy.

"People are not interested in strategies that are not explainable," says Mr Anthony Simpson, Panagora's head of marketing. The product offers familiarity, in that it is benchmarked, for example to the WM 2000 asset allocation. At the same time it aims to use quantitative techniques to add value both on a top-down asset allocation basis and at the bottom-up stockpicking level.

What exactly do quants *do*, apart from giving their firms peculiar names that usually begin with P or Q? The definitions are becoming increasingly blurred, because these days many mainstream fund managers use quantitative techniques, at the very least to measure and constrain their risks against their benchmark.

In principle quants rely on purely statistical or systematic methods of choosing between individual stocks or asset classes. Typically they rely on powerful computers to crunch the numbers in databases and use optimisation techniques to choose the best markets to be in, based on past volatilities and correlations.

Jennie Paterson: offering active products to UK pension funds

Another approach is to analyse the factors which are driving the market, as London firm Quorum does, closely tracking measures such as price-to-book or other value indicators across a number of European stock markets.

High-powered US-based investment gurus are now focusing on the potential of the European pension fund market place. The investment management firm set up by Californian one-time academic Mr Barr Rosenberg, for instance, has recently picked up a £50m active UK equity account for the Kingfisher retail group. It has also won mandates in the Netherlands and Scandinavia.

Rosenberg has developed active equity products for leading markets such as the US, Japan and the UK, and also seeks global mandates. Although performance went through a bad patch a few years ago it claims its value-based formula is delivering outperformance of between 2 and 4 per cent a year, with the UK at present near the top of that range.

The Nobel Prize-winning Modern Portfolio Theory pioneer Mr Harry Markowitz has also developed active equity products for the US, Japan and the UK. He is working in partnership with Japan's Daiwa Securities, and has a marketing link with Commercial Union in the UK where, its products are marketed under the Cudos name.

Mr Markowitz admitted to experiencing problems in making his model work for the UK, largely because the data was not as good as in the US or Japan. Following its launch last year, the design of the Cudos UK fund design has been tweaked with the aim of ruling out a repetition of the fourth quarter underperformance. This was a consequence of underexposure to Glaxo (due to a ceiling on holdings in individual stocks) and a lack of exposure to investment trusts.

So Cudos UK underperformed the market by about 1 per cent in 1995, entirely because of the fourth quarter. Its objective remains to deliver the All-Share return plus 1.5 per cent, over rolling three-year periods, net of fees.

Other London quant firms have focused on a variety of products. Pareto Partners, for instance, has taken on a lot of currency overlay work for US pension plans, which involves controlling currency risks separately to those from underlying investments, and ideally adding extra return.

US pension plans are also interested in so-called tactical asset allocation (TAA), in which quant techniques are used to optimise allocations to equities and bonds globally.

There are plenty of tempting possibilities here. For instance, one firm, First Quadrant, has done interesting work to show that simple rebalancing to a benchmark can add significant value over an extended period. But a recent investigation by the performance consultants World Markets, covering 23 fund management houses, mostly from the US, suggests that TAA's benefits – if they exist – are hard to pin down.

The quantitative investment management side of the Barclays Bank group has now become the world's biggest quant manager through the takeover last year of the investment side of Wells Fargo. Although BZW Asset Management, as the combination is now called, is best known as the dominant manager of index funds, worth some $180bn at the end of last year, it also runs some $70bn in funds with active strategies, mostly using forms of TAA.

The number two in the field in the US, State Street, is also well established in London, and has been promoting emerging market strategies where it relies on a combination of asset allocation judgments and local index funds.

Colin McLatchie: disciplined tools are needed for asset allocation

So far many of these active quant firms have gained most of their business by selling global products to the US or specialist funds to the Continent. The big opportunities in the very conservative UK pension fund market remain largely untapped.

Panagora's new approach is to spurn the normal specialist route and go for mainstream balanced accounts, presumably reckoning that there are many pension funds out there stuck with disappointing traditional balanced managers.

Simulations indicate that the firm's systems can deliver reliable top quartile performance, after fees, on a three-year rolling basis. Unlike conventional UK balanced managers, who rely almost entirely on stock selection to outperform, Panagora aims to add value through asset allocation too.

"Other people don't have any disciplined tools to make the asset allocation decisions," claims Mr Colin McLatchie, the firm's chief operating officer in Europe.

But the history of quant shows that all too often it can be a tough task to turn simulated outperformance into the reality of long-term client satisfaction – and doubly difficult in the field of UK company pension schemes.

■ **Trustees:** by Norma Cohen

Boards have to clarify their aims

Pension scheme trustees will have to state their investment objectives

The Pensions Act, which takes effect next April, is a watershed in many respects.

Its most revolutionary aspect is the way it codifies the duties of scheme trustees, and in particular, those duties relating to investment.

It requires trustees to set out a statement of their investment policies including details of expected returns and risks.

This is a tall order. "The guidance in the Act on the contents of the statement is not 100 per cent clear," according to actuaries William M Mercer and Co.

What remains ambiguous is just how far trustees must go towards setting out their expectations of returns and risks.

In the past, Mercer notes, trustees have had problems putting specific investment objectives into practice, particularly when they have asked an investment manager to follow a strategy similar to that of the "average" pension scheme. Such a strategy has often produced a stream of returns differing little from those of a scheme's peer group but which may not have matched the demands for cash generated by its liabilities.

"The whole area of investment is a bit of a grey one," says Mr Trevor Crowter, partner in the actuarial practice at accountants KPMG Peat Marwick. "Certainly trustees will have to set out their aims and objectives, but so far, the wording is so vague that no one knows what that means."

Further clarification is due this summer from the Department of Social Security, but even then, it will be up to trustees to interpret the rules.

One question which remains unclear is whether trustees will be required to conduct an asset/liability study to gauge the extent to which their investments are likely to produce the cash needed to pay pensions. While it is generally accepted that equities outperform gilts over the long term, gilts are the investments carrying the surest guarantee of steady future cash flow. And the increasing maturing of the average UK pension scheme suggests that trustees must reallocate their investment portfolios more heavily in favour of gilts in order to reduce risk.


Goode: proposed new rules


Bagot: equities holdings unlimited

Data from WM Company shows that currently most schemes have done little to match their assets and liabilities. A review of 154 schemes showed only six whose investments in "real" assets – equities and property – were less than 70 per cent of the total. These included a group of "super mature" funds which conventional wisdom says should have been heavily invested in gilts.

The Act does not ask trustees to run a totally risk-free investment policy. They must simply understand the risks their strategy poses.

Mr Gordon Bagot, director of research and consultancy at performance measurers WM Company, says that trustees of a well-funded scheme who expect their employer to be around for a long time to come can justify an investment strategy designed to maximise returns rather than reduce risk. And that, he says, means running a portfolio heavily weighted in equities, even when current and deferred pensioners outnumber contributing members.

After all, investments in UK equities over the past 10 years have delivered the best long-term results, two percentage points a year ahead of the next best asset class, overseas equities and bonds.

However, Mr Bagot concedes that this strategy might require the company to add cash occasionally in a year when investments provide insufficient returns to pay pensions. "It might be in the long term interests of the company to take the risk of having to put cash in periodically," Mr Bagot says.

The difficulty with this, he notes, is that the Pensions Act, which is based on the work of a committee chaired by Professor Roy Goode, gives the responsibility for setting investment strategy to the trustees. But it is the company, the ultimate provider of the needed cash, which must really make the decision about how much risk to take on. If trustees make one assessment of risk and the employer another, confrontations are likely to ensue, Mr Bagot notes.

The new Act poses other troubling questions for trustees on the investment front, he adds. For instance, if trustees decide that it is really appropriate to alter the asset mix, when should that shift occur? "Do you want to move into bonds when interest rates are at their lowest and then get killed when they rise again?," Mr Bagot asks. And if they make the wrong decision, could trustees be said to have failed in their fiduciary responsibilities to scheme members?

It is easy to imagine the sorts of discussions that trustees will be having with their advisers in trying to come to grips with their legal obligations on thorny questions such as these.

The dispossessed: thefts from Maxwell Group pension funds were the main trigger for the new legislation

Indeed consultants say that one by-product of the Act will be demand for more and better trustee training. Mr Roger Urwin, senior partner in the investment practice at actuaries Watson Wyatt and Co says that while most trustees mean well, they too often do not have the skills required of them under the new law.

"Trustees' attitudes are right, their integrity is of a very high order," he said, speaking at a WM Company forum. "But their skills and backgrounds are just not up to running a big, complex financial institution like a pension fund."

And when it comes to setting an investment strategy which is inconsistent with the consensus of a peer group of pension funds, many trustees will be reluctant to act, he says.

There are other investment duties the new Act delegates to trustees; the selection and appointment of fund managers, custodians, and other advisers.

But while these formalised responsibilities for trustees spell new headaches, they also are likely to lead to better run schemes, consultants say. "We believe that to get the best out of the Statement of Investment Principles (required under the Act), schemes really need to address their objectives," consultants at William M Mercer say. "This is a very good thing to do, with or without the Statement."

■ **Custody:** by Norma Cohen

Funds wake up to the dangers

High investment costs and tougher client briefs are prompting a shake-up

For pension fund trustees, the custody of scheme assets had historically been, at best, a dull housekeeping issue. Dull, that is, until the late Mr Robert Maxwell disappeared overboard five years ago.

The Maxwell affair alerted trustees to the possibility that there are more ways to lose money than simply picking the wrong asset mix. Assets, they learned, can go missing overnight if one is not careful, and by all accounts the level of vigilance has increased.

Since Mr Maxwell's death there has been a sea change in what trustees expect from their custodian. Not only do they require gold-plated guarantees on the safety and security of assets, but they want to know at every minute of the day where their securities are, what yields they are returning and where their cash is.

The growing demands placed on custodians by pension scheme trustees and administrators has hastened one of the most fundamental changes in the industry. The need to invest constantly in information technology has caused a significant number of providers to decide that they no longer want to be in the business at all.

Over the past year, US-based JP Morgan sold its global custody business to Bank of New York – a move also made by Bank of America. National Westminster Bank sold its custody business to Lloyds Bank, while Prudential, the UK's largest life insurer, abandoned its in-house custody operations. UK fund managers Henderson Administration and Barings Asset Management have done likewise.

One of the forces driving the consolidation, consultants say, is the new Pensions Act which specifically gives trustees the responsibility for selecting a custodian.

Pension funds were badly shaken by the collapse last year of Barings, the UK merchant bank whose operations included a substantial fund management division and a custody business. Although securities held for clients by the custody business were safe from claims by creditors, the client cash had been placed on deposit at Barings banking division. Had the buyers of Barings, ING Bank, not agreed to make good the liabilities, over £600m in client cash could have been at risk.

Mr Robert Kay, partner at Global Securities Consulting Services, which specialises in custody, says that if anything, the Barings collapse has hastened the tendency for pension schemes to choose a custodian separate from its fund manager. "The trend is only one way," Mr Kay says. "The first and main reason is risk management."

Clients want to ensure, first, that the custodian of their cash is financially sound. Second, he says, they want to know that their investments are dispersed among several banks so that even if one becomes insolvent, they have only lost a relatively small portion of their assets.

Beyond narrow concerns about the custody of cash, the collapse of Barings has made trustees focus on the financial strength of their custodian.

One of Baring Asset Management's first acts after it was acquired by ING was to announce that it would abandon its in-house custody arm and select a "custodian of choice" for its clients and negotiate a bulk contract which would get them better terms than if they found a new custodian individually.

Barings' move, consultants predict, is likely to be followed by many UK fund managers who have been offering their own custody service. Indeed, SG Warburg, the former parent of fund Mercury Asset Management is understood to be talking to prospective buyers for the MAM custody and fund administration business it now owns.

Defined contribution schemes: by Jonathan Guthrie

Risk-averse employers warm to money purchase plans

The patience of managers with money purchase expertise could be rewarded soon

From July 1 new members of Barclays Bank's pension plan will pay their contributions into a defined contribution (DC) scheme. This means the bank's old defined benefit (DB) scheme will shrink in years to come, as its 67,000 members retire and its £7.7bn in assets are paid out in pensions.

Investment managers predict that many large companies will follow Barclays' lead. As its name implies, only the contribution level of a DC scheme is fixed in advance. The size of the member's pension depends on how well his or her individual investment fund performs. The employer does not have to pay higher contributions if performance is poor, as is the case with a DB scheme, in which members' pensions are set as a proportion of their final salary.

Moreover sponsors of DC, or money purchase, plans will not have to meet the cost of complying with complicated rules on solvency that will be imposed on DB schemes by the Pensions Act.

An erosion of job security in the UK labour market means that employers can switch to DC provision without seriously damaging relations with existing employees or competitiveness in attracting new ones. According to a recent survey by third-party administrators Hartshead Solway, more than half of schemes considering changing their benefits structure thought they might introduce money purchase plans.

Companies that have set up DC plans recently include WH Smith, Standard Chartered, Pearson – the owner of the Financial Times – and Legal & General.

DC plans have always been popular with smaller employers. Insurers such as Prudential, Sun Alliance and Scottish Equitable have traditionally serviced this market, providing investment management and scheme administration in a single package.

City investment managers have rushed to set up DC investment services with the aim of winning some of the new business emerging from big employers. This group of providers includes Mercury Asset Management (MAM), Gartmore, Schroders, Flemings, Fidelity and Morgan Grenfell.

At present these latecomers are like surfers paddling around on a calm sea, waiting for a big wave to pick them up and carry them forward. The assets of DC plans are small compared to those held by DB schemes – just £10bn out of a total pension fund market of £600bn, according to one estimate. But they should build up rapidly as the swelling stream of contribution payments is boosted by stock market growth.

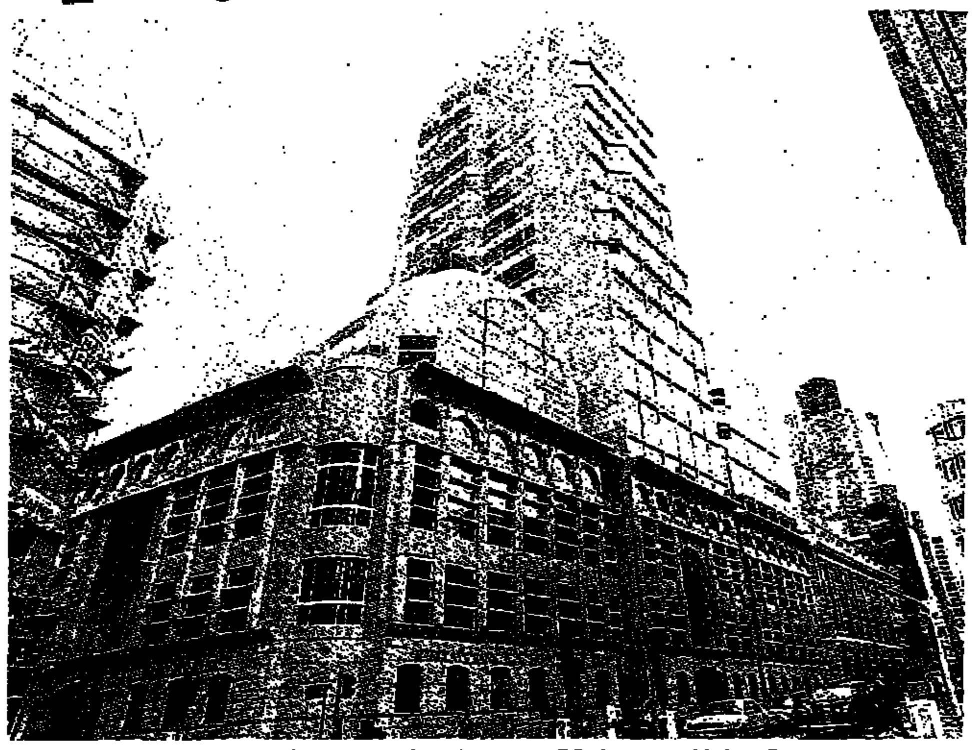
Mr Philip Beale, director of institutional marketing of Fleming Investment Management (FIM), says: "What is attractive about the market is its growth potential. We were expecting that it could grow to between £30bn and £40bn in the next 10-15 years. The Pensions Act has made us revise that upwards to £50bn to £100bn."

Those investment managers, who, like FIM, are not integrated departments within a large insurer, are estimated to manage little more than £1bn in DC scheme assets. But they are catching up rapidly. According to the magazine Pensions Management, in the year ending in March 1995 Mercury Life – an insurer wholly-owned by MAM – received premiums of £165m from DC schemes, just £10m less than the Prudential. The previous year it took only £77m against the Prudential's £154m.

Traditional investment managers have an important advantage over insurers in the battle to manage the assets of big companies' DC plans: a cosy relationship with benefits consultants.

Cynics say the consultants are unlikely to recommend an insurer offering investment and administration as a package. They can make more money by advising the client to use a specialist investment manager, and supplying the administration themselves.

According to Mr Alex Welland, managing director of Gartmore Pooled Pensions: "With final salary schemes the focus of customer service is on the trustee, but with money purchase it is on the member as well." The latter is often given the chance to choose how their fund is invested.



Barclays Bank is just the latest big British employer to set up a DC plan to provide benefits for new entrants

Freedom of choice means freedom to make the wrong choice. An example would be a member approaching retirement who gambles his fund on volatile Far Eastern markets. According to received wisdom he should really invest in low-growth, low-risk securities, such as gilts, to lock in long-term capital gains.

To avoid blunders such as these many providers allow trustees to bar members from using their riskiest investment funds.

Some investment managers and insurers also offer their corporate clients DC schemes that incorporate a "lifestyle" plan. These switch members' funds from high to low-risk investments as they age, assuming they do not want to make their own investment choices. Younger members' funds buy assets that deliver long-term growth at the price of short-term volatility, such as equities. Older members' pots are invested much more heavily in gilts.

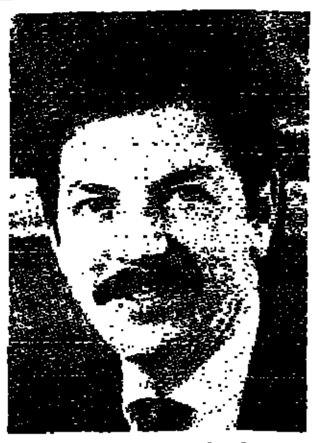
Lifestyle plans are designed to benefit members who do not want to make their own investment choices – usually a majority of around 80 per cent, according to Mr Beale of FIM. And in theory they should produce higher fund values at retirement than the investment methodology adopted by those insurers who put all money from DC schemes into managed and with-profits funds. The gilts weightings of these pooled investments – up to 25 per cent for some with-profits funds – can prove too high for younger members, but too low for older counterparts.

Investment managers take a risk-averse attitude to investing DC assets. This reflects the objectives of their corporate clients, who have little to gain from a high-risk, high-reward strategy. There is no scope for contributions holidays or a return of surplus. And if investments perform badly, the resulting cut in pensions income will make the scheme's trustees and sponsor hugely unpopular with members.

DC plans' investments are harder to administer than those of DB schemes. This partly explains why investment managers charge 20 basis points more for managing a DC plan than a DB scheme.

Managers have to keep track of a separate pot of assets for each member, who sometimes takes a proprietorial interest in how it is handled. For example members and trustees expect contributions to be invested far more quickly than peers with final salary schemes.

Making tax reclaims on investment returns is a bugbear for investment managers who place their clients' DC funds in their own range of unit trusts.



Alex Welland: the member is a client as well as the trustee

Those integrated into or affiliated with an insurer have an advantage here, because they can pay back tax into their tax-exempt funds gross. In contrast unit trust firms have to split reclaims laboriously between the tax-exempt investors who use their ranges of unit trusts. This is one reason why some investment managers, including MAM, have set up life offices as a springboard for entering the money purchase market.

Few big employers who are establishing money purchase plans are winding up their old final salary schemes. Most are running the two in parallel. The approaches they adopt range from allowing new entrants to choose between joining a DC or an DB scheme, to restricting membership of the latter to their existing employees.

Philip Beale: Pensions Act has boosted the market's potential

Some companies are introducing hybrid schemes. These allow the employer and employee to split the risks of poor investment performance. If the member's fund performs too poorly to provide a pension worth a given proportion of his or her final salary, the sponsor will make up the difference. But if it beats this benchmark, all of the returns from its outperformance are used to boost the pension.

These plans allow employers to reduce their pensions liabilities while reassuring employees that bad investments cannot seriously damage their level of retirement income. If they are widely adopted the battle for dominance between DC and DB schemes will have been resolved in a very British way – by a compromise.

Corporate governance: by John Kingman

City's reluctant activists

The voting power of investment managers has placed them centre stage

Thanks to this year's hard-fought battle for Forte, Britain now has something rather unusual: a well-known investment manager. Because Mercury Asset Management held big stakes in both Granada and Forte, the bid shone a powerful spotlight both on MAM and its vice-chairman, Ms Carol Galley.

It also fuelled the debate over investment managers' power and the ways in which it is exercised. Institutional investors are increasingly seen as the front line in the battle over corporate governance.

The reason is simple. The voting powers that investment managers' substantial shareholdings confer represent the most effective potential check on directors' freedom to run companies as they please. As concerns about corporate governance have grown, so the potential for institutional investors to make companies change their policies has been increasingly stressed.

Inevitably, some have found the investment managers wanting. Sometimes, as in the Granada bid for Forte, they have been criticised for wielding too much influence. Conversely, they have been attacked for not bothering to exercise the power they have – selling their stakes in companies they have lost confidence in, rather than taking the trouble to address deficiencies of strategy or management.

Investment managers say their job is to maximise the return on their funds, not to police the wider public interest; anything else would be inconsistent with their duties to the pensioners, for whose benefit the funds are managed.

But others worry that if institutional investors do not bother to press for change, nobody will. The Cadbury report, for instance, stressed the importance of investment managers seeing it "as their responsibility as owners, and in the interest of those whose money they are investing, to bring about changes in companies where necessary, rather than selling their shares".

Sometimes, of course, they have little choice: where institutions hold big stakes, selling out can be difficult, giving them a powerful incentive to work with companies to improve shareholder returns.

Sir Adrian Cadbury: the report from his committee initiated the debate

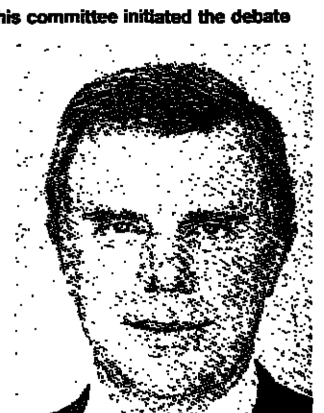
Both the Greenbury and Cadbury reports produced codes of practice which companies were expected to follow. Neither expected pressure from institutional investors, on its own, to provide a solution to the corporate governance problem.

This is not only because institutions can choose to sell the securities they hold. It is also because issues of public concern may not worry investment managers. For instance, they may have no difficulty with a company they invest in paying a big salary to an executive who has delivered big returns, even though public opinion is against it.

On the other hand, they cannot afford to ignore "fat cat" salaries altogether. It is, for instance, in their interest as investors to encourage as close a link as possible between remuneration and shareholder returns. Moreover public storms over pay can damage shareholders' interests: the furore over the large salary commanded by British Gas's chief executive Mr Cedric Brown, for instance, almost certainly hit the British Gas share price.

In practice, where investment managers have published corporate governance policy statements, they have tended to shy away from executive pay, the most highly-charged of all corporate governance issues, leaving it to company remuneration committees to handle.

Trustees and investment managers are becoming more active on other issues. Certainly they are voting at companies' annual general meetings more than they used to.



Cedric Brown: row over his pay

The trade body of the pension fund industry, the National Association of Pension Funds, believes they should do so, and even offers a "voting issues service" assessing companies against a range of corporate governance criteria and highlighting contentious resolutions requiring shareholder approval.

The NAPF also encourages pension fund trustees to develop voting guidelines within which, if necessary, delegated voting authority can be granted to investment managers. This is the approach taken, for instance, by the rail pension fund. RailPen's trustees have issued a set of voting guidelines for their investment managers to follow, but expect "political, outstanding or worrying" issues to be referred back to them.

Several investment managers have meanwhile produced their own guidelines, explaining how they exercise the voting powers they wield on behalf of trustees.

This approach fulfils a recommendation of the Cadbury report that institutions should publish a statement of their policy on voting rights. But it has been far from universally taken up.

One reason is that many doubt whether guidelines can fully capture what corporate governance is about. Mr Hugh Stevenson, chairman of MAM, says: "A formal checklist inevitably overlooks some of the things that matter most to us, such as the quality of non-executive directors, or that corporate strategy is right."

Mr Derek Fowler, chairman of the RailPen trustees, agrees: "What is more important to our stakeholders – the pensioners – is whether the judgment being exercised by company directors is in shareholders' interests."

As RailPen's corporate governance paper puts it: "Ensuring boards are in control of the business, act effectively and have a sound strategy is more likely to achieve higher shareholder returns than 'hygiene' factors."

British investment managers have traditionally exerted discreet pressure on companies behind closed doors. Some believe a more direct approach is now needed. For instance Calpers, America's largest public pension fund, has suggested that British institutional investors should jointly set up an institute to improve management at underperforming companies.

So far proposals like these have tended to receive a cool reception: many British investment managers simply prefer to work quietly.

The debate over trustees' and fund managers' methods is evolving fast. Once guidelines are published, pensioners – on whose behalf they have, after all, been established – will be able to comment on them. They will also be able to hold trustees and investment managers to account, asking how far they have complied with the guidelines in particular cases.

Mr Fowler says: "It won't be long before pensioners start asking 'how did you let this company get away with such-and-such for so long?' Once you get that, corporate governance will really come to life."

Investment consultants: by Jonathan Guthrie

A few big firms dominate

Scope for cross-selling gives large actuaries an advantage in this business

The need to diversify drove British actuarial firms into investment consultancy. There was little scope for growth in their core business, actuarial valuations of pension funds. Extracting more income from clients meant selling them a new product.

That product – advice to pension fund trustees on selecting investment managers – has been highly successful. The investment consultancy division of Watson Wyatt, the benefits adviser whose clients include the pension funds of 40 of the FT-SE 100 index's members, now has 50 consultants chalking up billable hours, compared with a handful at its start eight years ago.

The unit, along with competing departments at firms such as William M Mercer, Sedgwick Noble Lowndes, Hymans Robertson, Bacon & Woodrow and Alexander Clay, is busy developing a range of other services.

The most successful of these is the asset/liability study, a comparison of a fund's potential future income with its likely outgoings. Demand is brisk from maturing funds – those who face paying out more money to pensioners than they receive from investments and contributions.

The introduction of a minimum funding requirement (MFR) via the Pensions Act has also boosted custom. This measure, which will be implemented from 1997 onward, will encourage funds to match their investments and their financial obligations more closely.

Mr Paul Haines, investment director at Sedgwick Noble Lowndes, says: "The issue for investment consultants is not calculating the fund's current position in relation to the MFR, but whether investments will perform well enough to avoid breaching the guidelines in future."

Most UK investment consultancies have a particular advantage in undertaking asset/liability studies. Unlike their US counterparts, which are often stand-alone operations, the majority are integrated into actuarial firms. This gives them instant access to data and methodologies useful in understanding their clients' liabilities. Meanwhile a fall in the cost of computing power has allowed them to increase the sophistication of the service they can offer.

Investment consultants aim to diversify geographically as well as in terms of products. They are establishing new outposts around the world. Their aim is to provide research and advice informed by local knowledge, but which conforms to consistent global standards.

There are three main prizes at stake. The first is to advise clients based in one country on performance and manager selection in another, as investment becomes a more international business. The second is to sell a consultancy service to multinationals that covers all their pension funds in countries around the world. The third is to establish an early presence in countries that are setting up funded plans for the first time.

Reported adviserships on manager searches

Consultant	1995 No of mandates	1995 Value $bn	1992-1995 No of mandates	1992-1995 Value $bn
Watson Wyatt	25	8.6	123	28.0
William M Mercer	23	3.9	69	7.7
Hymans Robertson	9	2.1	31	6.3
Bacon & Woodrow	7	0.6	23	3.5

Source: Global Money Management

The UK arm of William M Mercer is playing a lead role in spearheading the US-based benefits consultant's push into investment consulting in Europe. In May 1995 it took over the investment consulting firm Klein Haneveld in the Netherlands, a country with many big pension funds. This year it set up an investment consulting business in Spain.

Mr Robert Baker, deputy head of William M Mercer Investment Consulting, says his firm is taking on an increasing amount of cross-border work for multinationals, adding "Often our role is to tell the centre what is going on at the periphery."

Mercer's most obvious international rival was formed in 1995 when US benefit consultant Wyatt took an effective 10 per cent shareholding in UK counterpart R Watson. Both companies adopted the name Watson Wyatt (WW) in a combination which executives insist on referring to as an "alliance", but which for operational purposes looks like a merger.

The firm's investment practice is busy standardising research from offices around the world. It is also rejigging its management structure, moving the former head of its US office, Mr Mark Scott, to the UK to take up the newly-created post of head of international investment consulting.

His immediate boss, Mr Roger Urwin, head of investment consulting worldwide, has built up a strong UK practice, capitalising on referrals from the firm's actuaries, who specialise in advising big schemes. As a result WW has a dominant position in running large investment manager selection exercises. For example, Equitas, the reinsurer of old claims against Lloyd's of London, recently appointed WW as its adviser in choosing managers to run funds that could be worth up to £10bn.

According to the newsletter Global Money Management, last year WW advised on 25 publicly-reported mandate contests, worth $8.6bn in funds under management. William M Mercer's, its nearest competitor, had 23 publicly-reported adviserships, on tenders worth just $3.9bn.

Baker: more multinational work

Many mandate contests go unreported and consultancy sources say WW actually advised on 99 selection exercises for funds worth $16.7bn.

WW's dominance mirrors that of a few pension fund investment managers – performance measurer CAPS says 20 per cent of them invest 82 per cent of the money held in balanced segregated accounts. Privately, investment managers who win few mandates claim WW only recommends a handful of big investment managers for possible selection.

Ms Jane Welsh, a senior investment consultant at WW admits: "Inevitably if you're looking at placing very large portfolios you're restricted in the number of firms that can deal with them." But she says that her department takes a far broader view of the market than criticisms suggest – during 1995 it researched 100 investment managers and included 59 on short lists.

Equitas, reinsurer to Lloyd's, is running a huge manager selection

A consultancy, Cygnet Management Services, has recently been set up to help investment managers sell their services to investment consultants and pension funds. Co-founder Mr Charles Anderson says: "There are well over 200 investment managers in the UK and a long list for a selection exercise is unlikely to include more than ten...Cygnet feels that some remarkably strong investment managers are not being brought to the attention of the consultants."

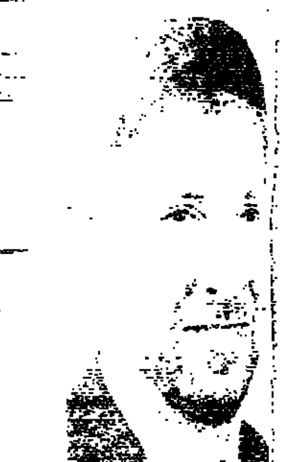
Pension funds sometimes fire investment managers whose performance falters. But they do not sack their investment consultants for recommending them in the first place. Watson's Wyatt's Ms Welsh comments: "They understand why we've put particular managers forward, but ultimately it's their decision."

The beauty of the business, like any consultancy work, is that the adviser advises, but the client bears the risk.

THURSDAY MAY 2 1996

plans

ninate



FINANCIAL TIMES **REVIEW**

Information Technology

Wednesday **May 1** / Thursday **May 2** 1996

Businesses fail to halt 'Ram raiders'

A spiralling crime wave is causing growing concern among law enforcement authorities, insurers and the business community, writes **Paul Taylor**

Armed thieves and so-called "Ram-raiders" have helped turn chip theft into a multi-billion-dollar industry worldwide, and computer "hacking" and virus attacks are on the increase.

Computer theft is already the fastest-growing crime in the UK. Nevertheless, studies by independent consultants such as KPMG and Ernst & Young show that physical and other security is often lax and businesses are still doing too little to protect themselves from attack. In some cases, the consultants warn, this puts the very survival of businesses at risk.

While the personal computer and computer network have become important business tools, they have also emerged at the heart of a spiralling crime wave which is causing growing concern among law enforcement authorities, insurers and business representatives.

Dependence on computing power carries obvious risks. According to a Loughborough University study, 70 per cent of businesses that suffer computer failure of one kind or another will be out of business within 18 months.

Similarly, the latest Information Security Breaches Study by the National Computing Centre which covers more than 7,000 separate incidents, notes that almost 20 per cent of reported security breaches had a "significant or serious impact on the organisation", and in 30 per cent of *thefts and 16 per cent of all incidents* it took more than a week to restore operations.

Nevertheless, a recent study by Ernst & Young revealed that although IT security was a big concern for managements in Britain, more than a third had no security policy.

A similar study by KPMG showed that 98 per cent of organisations in the UK and Ireland failed to implement the BS 7799 "Code of Practice for Information Security management." The majority of organisations also fail to meet the three key controls affecting physical security which, the firm points out, "are particularly important in the light of recent terrorist incidents."

Specifically, three-quarters of the companies surveyed do not have a designated security officer, 77 per cent have no formal procedure for reporting security incidents, and 67 per cent do not have a business continuity plan.

Commenting on the findings, Mr Michael Bacon, director of information security services at KPMG said: "Given the value to organisations of both computer equipment and data, it is extremely disturbing that such a large number have failed to implement *these basic security* requirements."

Rather than the theft of complete machines, most physical computer crime involves the taking of components, especially valuable microprocessors and memory chips. In Britain alone, thefts of chips are estimated to have cost British industry £1bn last year, with insurance claims approaching £200m. The largest single incident of any type recorded by the National Computing Centre involved a theft which cost an estimated £750,000.

Often the crimes are blamed on organised gangs, some armed, who *have discovered* that personal computers, chips and other components are easy to carry, difficult to trace and worth more than their weight in gold. The average thief can easily stash more than £200,000 of stolen computer chips in a rucksack. In the US, where chip theft – including armed hold-ups at Silicon valley *semiconductor plants – is rife, one* insurance company estimates the problem will cost companies $200bn worldwide by 2000.

Virtually *no* organisations are safe from the crime wave although the majority of premises attacked have been commercial. Targets have ranged from multinational manufacturers to national newspapers, public utilities and local government offices.

The average computer is likely to have about £500-worth of chips inside it, and is often sitting on a desk secured by only two screws in the computer case. Meanwhile, most chips are unmarked and even if stolen chips are recovered, it is usually impossible for police to discover *where they have been stolen* from.

One way to make the tracing of computer chips easier would be for manufacturers to label them with pin numbers. Intel, the world's leading microprocessor manufacturer, does label batches of its Pentium processors with identification numbers and IBM has started numbering its memory and processor chips.

However, most chip manufacturers argue that labelling individual chips with unique numbers is impractical and would be too costly.

To combat physical computer crime, a wide variety of protection measures have been developed.

Physical restraints, such as hardware cases and tamper-proof bolts are used to *attach the machine to a desktop or floor* but are unsightly and can impair the users' productivity.

Alternatives include plug-in card motion detectors and electronic tagging systems for components. These are usually based on wireless radio transponders which can trigger local and/or remote alarms or even spray indelible dye over the components.

Other security products include invisible identity tags which show up under ultra-violet light, microdots, smoke bombs and chemical mixtures designed to produce a a unique "fingerprint" which helps identify the components. However, some computer manufacturers have suggested that some of these products might invalidate warranties.

Several companies have also developed software programmes which monitor networked computers and their components.

Some of the new anti-theft products are on display at Infosec 96, the UK's first big IT *security exhibition*, at London Olympia this week.

"Computer crime is now rife and spreading at epidemic levels," claim the show's organisers. More than 100 companies are exhibiting their latest IT security products, and the organisers have prepared seven fact sheets dealing with security "hot topics" such as encryption, disaster recovery and virus protection.

Indeed, while physical computer crime steals most of the headlines, computer crime also encompasses other activities such as hacking and virus attacks.

In the UK, 80 per cent of organisations have suffered an IT security breach, according to data prepared by Ernst & Young and the Department of Trade and *Industry*.

Experts in the IT security sector estimate that breaches cost UK companies more than £1.2bn a year with incidents rising at 12 per cent a year. Computer networks are particularly at risk.

There are an estimated 8,500 computer viruses in circulation with between 150 and 200 new viruses *being written each month*, mostly by young and male computer wizards.

Some virus authors have even formed "cyberpunk" gangs dedicated to causing damage and mischief. For example, one gang is called Vlad (Virus Labs and Distribution) while another is called Phalcon-Skism (Smart Kids Into Sick *Methods*).

While writing a computer virus is not an offence, damaging data is. Recently, the "Black Baron" was jailed for 18 months for causing more than £500,000 of damage with his SMEG viruses.

In North America, a recent report on computer viruses conducted by the US-based National Computer Security Association, suggested computer viruses will cost North American businesses between $5bn and $6bn this year, up from just $1bn last year.

The NCSA study, which involved 300 large organisations, discovered that 98 per cent had experienced computer virus attacks – and at least half of these involved the macro virus which affects Microsoft Word documents.

"The losses stem from costs related in finding and eliminating these viruses, as well as computer down-time," said Mr Peter Tippett, NCSA president.

"At least half of the increase in losses has been caused by the new macro virus which is spreading faster than any other type of virus as it can travel by e-mail and can prove difficult to detect because most users do not scan documents for viruses."

Since the start of the year, most of the leading virus protection software vendors including McAfee have launched new products capable of detecting and deleting macro viruses.

However no amount of "firewall" security or anti-virus software will *prevent attacks from within. Most* studies suggest that 60 per cent of computer abuse is caused by insiders.

And virus attacks and hackers are not the only IT threats to businesses. According to Blick Rothenberg, chartered accountants, as much as £2bn a year is being wasted by British companies because of computer misuse and "time-wasting including 'surfing' the Internet". Some 10m people in the UK now use computers in their work and if they only waste three minutes a day each then this alone costs British industry £1bn a year.

While most of the losses to business are due to computer misuse, Mr Mark Ryan, Blick Rothenberg systems manager, said: "It varies from surfing the Net, to unauthorised computer use like the copying of software and more users than a licence permits, to poor documentation, data thefts, amendments to processing and data and computer damage."

Mr Ryan believes that much of the loss is recoverable if business puts simple controls and management procedures in place. But if they do not, he warns, "the problem will grow and cost a great deal more."

■ Chris Galvin, president and chief executive of Motorola — Interview by Paul Taylor

Ready for the next surprises

In order to help stimulate innovation, Motorola holds annual technology 'road map' meetings where business groups look at technologies 10 years ahead

From the outset, Motorola's founders, Mr Paul Galvin and his brother Joe, proved adept at creating and exploiting new markets for the group's technology – a strategy which has helped the Chicago-based electronics group grow into a business with worldwide sales last year of $27bn.

Today, Motorola is the world's largest supplier of wireless communications equipment, its semiconductor business leads the world in many of the markets it serves and it is frequently cited as one of the best run and most innovative companies in the world. "We create markets," says Mr Christopher Galvin, Paul Galvin's grandson who is Motorola's president and chief operating officer. "In the early days we largely created the *auto entertainment* industry in the US – that is where the name comes from."

When Motorola's founders began building car radios in the early 1930s there were no other suppliers and no market research. Despite this, Motorola's initiative led to the birth of a new industry. "That really began a pattern," says Mr Galvin, who first joined Motorola as a part-time employee in 1967.

Since its beginning in the back streets of Chicago, Motorola has pioneered the two-way radio, pagers, cellular telephony and, most recently, satellite communications through the Iridium consortium which is building a global satellite-based communications network.

In many cases, new businesses have grown out of old ones – and then been continuously adapted to better fit customer needs. For example, Motorola developed voice paging – effectively half of a two-way radio – for doctors in the 1950s. Next came digital numeric paging, then alpha-numeric paging – and now two-way paging which has been introduced in the US. Round the corner there is a new technology that allows for compressed voice in a voice-paging service. "It is like putting a telephone answering machine in your pocket," says Mr Galvin.

"One keeps seeking new ways to combine science and technology *to create a new service* for a carrier, or a new way to have a person communicate in some more convenient way." To support this, Motorola continues to invest heavily in research and development spending: £2.2bn last year.

"Motorola is a high technology business; that is where our engineering competence drives the value," says Mr Galvin. "We learned early that it was better to start something than to attempt to wait until the market was well known and then compete.

"We try to be first in innovation – that gives us a significant edge."

Although Motorola is now probably best known for its wireless products, including the ubiquitous *cellular telephone* which accounts for about 60 per cent of the group's sales, it has not always been that way. "For years we were known as a semiconductor company; we could never communicate to anybody that we were in the communications business," says Mr Galvin.

In fact, semiconductors, which account for 29 per cent of sales and have been growing at a compound annual rate of 23 per cent since 1991, remain a key part of the business. "Semiconductor technology is really one of the underpinning core competences of the institution," says Mr Galvin. The group's semiconductor products, which are mostly sold to external customers, include integrated radio circuits, control circuits and computing circuitry.

So where is Motorola concentrating its R&D investment today? "We continue to invest in what are called the derivative opportunities in all our known businesses," says Mr Gavin, who joined Motorola's board in 1988.

In semiconductors, he says Motorola is always trying to augment basic process technology – to shrink geometries, *lower power consumption* and make smaller, cheaper products while seeking out new applications for products such as microcontrollers and memories in smart cards.

For example, deploying an airbag used to involve a device called a "mechanical accelerometer" which measures the rate of deceleration using a weight and a spring built into something the size of a fist. To replace it, Motorola has developed a microcontroller device the size of a fingernail.

"You can go through all of our businesses and create what we think are very interesting derivative kinds of opportunities," says Mr Galvin. "We try to look for opportunities where the technology is changing... where there are new opportunities, for example the move from complex instruction set computing (Cisc) to reduced instruction set computing (Risc) or the advent of hybrid fibre-coax cable."

Similarly, Motorola has positioned itself to play a *part in the evolution of* the information superhighway through the development of cable modems which emerged from a group of Motorola cellular engineers looking for an alternative – and perhaps less expensive – way to connect cellular base stations instead of running it across the telecoms network by leasing lines or using microwave links.

In fact, cable – which pumps data down standard cable television *circuits* at high speed – turned out not be an optimal solution but someone figured out that the technology could be used as a low-cost way to transmit multimedia-rich data such as interactive television, video-on-demand or Internet Web pages into homes. "It illustrates the way we keep our minds open to things," says Mr Galvin.

In order to help stimulate innovation, Motorola holds annual technology meetings where business groups look at technologies 10 years ahead. "We literally lay out the road map of the technologies and *where they will go*," says Mr Galvin. The process ends with the creation of a master map. But Motorola also insists on a minority report or a non-consensus report.

It was at one of these meetings that the first idea for Iridium emerged. "A fellow stood up and said 'Please don't chuckle but I believe I can take the cellular switches and the base stations and float them in low earth orbit satellites around the world and people will be able to make a cellular telephone-like call on every square metre of the earth other than the densely-populated downtown areas because of the line-of-sight and communications issue.'

"Everybody was totally surprised and said it was impossible because no such thing had ever been done before, but within about 30 minutes we committed to what turns out to be a multi-billion-dollar project.

"We committed the first 10 engineers to study it, and then the next 10 because we saw it ever worked it would be quite spectacular. So you don't bet the whole bank the first day, but you go off and study whether or not it would be *possible and we think it is*."

Iridium is designed to enable mobile phone communications in places where the current cellular system does not reach. Mr Galvin emphasises that it is a complementary service targeted at business travellers or diplomats or those with unique remote business applications. Because it will only accommodate 1.2m or 1.5m users worldwide, it can only really target the top 1 per cent or so of mobile communications *customers*.

However, Mr Galvin also notes that "If you give human beings a chance to communicate *in some place* they thought they could not before, they find very unique ways to justify and need that product once it is made available."

This is intended to be a niche market, but if its succeeds then ultimately it may create a low earth orbit, high-volume satellite business.

"It doesn't means it is not a risk; these are large projects," says Mr Galvin, "but we think the technology is solid, and *financing is coming along*. There are still many challenges but we think these are the right kinds of risks for us to take for our shareholders."

But Motorola, which employs 142,000 people across the globe, also invests heavily in training and upgrading skills through the 'Motorola University'.

"When you get right down to it, an institution is just a group of people that are joined together by a set of ideas and principles," he says.

One of those principles is quality. "Quality is really a way of serving the customer and then, secondarily, for our shareholders, by lowering costs. We work very hard at developing the skills to prevent the possibility for defect.

"That in itself is a renewal process; it promotes reinvention because we keep seeking virtual perfection."

Mr Galvin also has a firm view on the concept of convergence. "We think, based on our experience, that there are so may different *problem sets* – or so many different ways to evaluate what is an appropriate way to solve that unique consumer or business's problem – *there will be many, many different* combinations of and/or inventions of ways of assisting people in telecommunications. Therefore the concept of convergence, where everything comes down to one product which solves all problems, is an over-simplification.

"The nifty thing about people, and why markets are so wonderful, is that people are different, so they value things differently." For companies such as Motorola, that means plenty of business opportunities. The challenge, however, will continue to be spotting those opportunities ahead of the competition.

"My father gave a wonderful speech at the 50th anniversary of the American Electronics Association," says Mr Galvin. "His message really was that when our company was founded in 1928, my grandfather couldn't see the next 16 surprises. Even when he started the business with battery eliminators he couldn't see the automotive entertainment radio as an industry; he couldn't see the portable *two-way radio*; he couldn't see the transistor; he couldn't see the computer; he couldn't see the satellite, a pager or a cellular telephone.

"None of those things he could see. So we like to orientate ourselves in a general way while always being very practical, trying to serve today's customers and markets, and that is where you generate the revenues and the cash flow to invest in the next event.

"The message was that in the next era you will have to look for the next 32 surprises because things will accelerate. We like to think we are preparing ourselves to recognise the next possible surprise."

■ James Goodnight of SAS Institute — Interview by Paul Taylor

R&D keeps software at the leading edge

SAS Institute has managed to balance technical excellence with a pragmatic approach to business and a caring approach to its 3,700 employees

Unlike many of his contemporaries, Mr James Goodnight, co-founder and driving force behind SAS Institute, US-based software *developer, generally* keeps a low profile.

While software entrepreneurs such as Bill Gates of Microsoft and Larry Ellison of Oracle are rarely out of the limelight, Mr Goodnight, SAS Institute's president, prefers instead to write code in his office surrounded by part of his collection of geological specimens.

But while neither Mr Goodnight, nor his company, which specialises in analytical software and information delivery tools which make managing a business easier, are household names, SAS Institute and its flagship product, SAS System, are widely acknowledged to be market leaders.

SAS System is an integrated suite of information delivery tools which include Executive Information Systems, data warehousing, client-server computing, database access, applications development, graphics, data analysis, report writing, quality improvement, project management, computer performance evaluation and decision support.

Mr Goodnight and his team of dedicated software engineers, many of whom have graduated from local universities, have quietly built the privately-owned company based in Cary, North Carolina into the ninth-largest software group in the world. Last year, sales increased by 17 per cent to $562.4m, marking the Institute's 19th year of double-digit growth.

"The industry's trend towards data warehousing propelled us over the half-billion dollar mark," noted Mr Goodnight when he unveiled the latest results in February. "As the only vendor providing a complete back-end-to-front-end data warehousing solution, coupled with the industry's leading business intelligence and applied analysis software for exploiting the warehouse, we anticipate strong revenue growth in this market through 1996 and beyond."

With the launch of the Orlando release of the SAS System late last year, the Institute continued to see more of its revenues come from the desktop. Last year, 61 per cent of the company's new software revenues was derived from personal computer and Unix software.

"By platform, the desktop continues to bring in a larger portion of new business for us," says Mr Goodnight, "however the mainframe is certainly not dead. Total revenue from PC software rose 36 per cent from 1994 to 1995, while Unix software revenue jumped 37 per cent, and mainframe revenue increased 13 per cent. This shows us that organisations are truly using our products in client-server settings."

Despite its financial success, SAS Institute still likes to think of itself as a college rather than a business, hence the "Institute" in its title and the gymnasium, rackets court and crèche in the wooded grounds of its campus-style headquarters. Its UK subsidiary is housed in Wittingdon, a renovated mansion on a substantial estate near Marlow in Buckinghamshire.

Since founding the company 20 years ago, Mr Goodnight, a graduate, statistical computing expert and professor at nearby *North Carolina State University*, has emphasised research and development and customer responsiveness.

SAS Institute has traditionally led all the main software vendors in terms of the percentage of its revenues devoted to R&D. Last year, the company spent more than $174m, or 31 per cent of its revenues on R&D. The spending was boosted by the creation of two new R&D groups. The first, a *data warehousing department*, was formed in April last year to address the expanding infrastructure requirements for building and managing corporate-level data warehouses as well as departmental level "data marts". New automation extraction, distribution, data *scrubbing and scheduling tools* are currently under development for release later this year.

The second group, formed *late last* autumn, is the Business Solutions department which is targeting packaged solutions as well as continuing to develop SAS Institute's other horizontal and vertical product offerings.

SAS Business Solution for Financial Consolidation and reporting, unveiled earlier this year, is designed to enhance decision-making by addressing the key IT and information issues encountered by finance *directors. "Financial control is* one of the keys to competitive advantage," says Mr Goodnight.

"Our large investment in R&D is what keeps our software on the leading edge, thus distinguishing SAS Institute from its competitors," he says. "We are fortunate to be a privately held company and not required to listen to a group of shareholders who are only interested in quarterly profits.

"Instead, we see our customers as our 'shareholders' and our pledge to them is to continuously evolve our software to best meet their organisations' unique information delivery needs."

SAS Institute's blue-chip customers include big companies (66 per cent of the installed *base including 97 of the top* Fortune 100 US companies), government agencies and universities. Every year the Institute distributes an annual survey – the SASware ballot – among its 29,000 customers. Responses to the ballot provide a foundation for future development and product enhancements.

SAS Institute, like its founder who still writes code, has managed to balance technical excellence with a pragmatic approach to business and a caring approach to its nearly 3,700 employees. There are no current plans to float the company, although Mr Goodnight acknowledges that this may eventually be necessary – if only to minimise estate duties.

James Goodnight: 'We see our customers as our shareholders'

IT

Fax-U-Back Information Service

For details of forthcoming issues of the FT Review of Information Technology, UK callers may use the **FT-IT Fax-U-Back Service.**

Details include editorial synopses of future issues and writers for various themes. **The fax number to call is:**

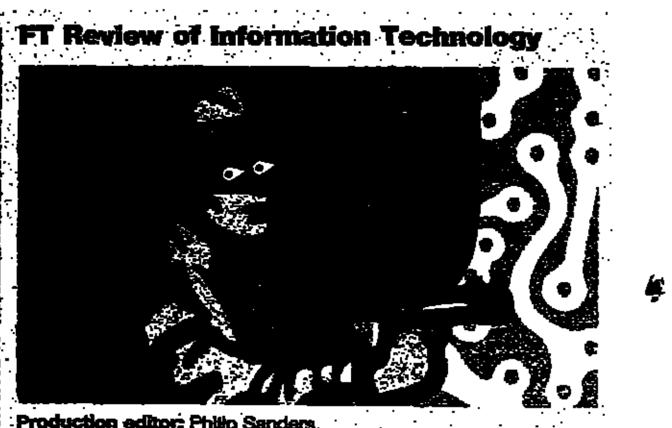
0990 209 903

For callers outside the UK, the fax number is 44 990 209 903

Technical note: If you have a handset on your fax machine, dial the Fax-U-Back number and press 'start' when instructed. Alternatively, the number can be dialled direct from the fax keyboard, followed by 'start'.

If callers have technical problems regarding this service, telephone **0171 873 4378**. Callers from outside the UK should dial: **+44 171 873 4378**

FT Review of Information Technology



Production editor: Philip Sanders
Writers in this issue (volume two, number four) include:
Paul Taylor, IT Correspondent; Louise Kehoe, Nuala Moran, Tom Foremski; Rod Newing, Philip Manchester, Michael Dempsey, John Kavanagh; Geoffrey Wheelwright; George Black; Marcia MacLeod, *Malcolm Wheatley*

Graphics: Robert Hutchison and Steven Bernard
Illustrations: Andy Martin (cover) and John Springs
Statistical research: Asifa Juma

New subscription service: readers of the FT-IT Review can now ensure they receive their own copy by post. Full details appear on the back page of this review.

The next issue, June 5: This will include the following main themes:
Main focus: IT in sport and the Olympics.
Plus: focus on IT in manufacturing.
IT directions: business strategies for the network-centric computing era. (See also page 8 of this issue for details of a London symposium on June 7, on this theme).
IT directions: ATM technology and fast switching.
Software: risk management.

The July 3 issue:
Focus on Networking
IT Directions: Multimedia in entertainment and education.
Software: Internet software tools.

For advertising details contact:

In London:
Simon Larter, Dominic Morgan, FT Advertisement Sales: telephone (+44) 0171 873 4129 or fax: (+44) 0171 873 3062

In the US:
New York: Gavin Bishop, telephone (212) 745-1342
San Francisco: Nick Mayle, tel. (415) 637 9775

Financial Times,
Number One, Southwark Bridge,
London SE1 9HL

■ Mobile computers are helping companies to hone their competitive edge – By Paul Taylor

'Toys' become business tools

The market for portable PCs continues to be one of the most dynamic segments of the global computer industry. World sales of mobile computers are forecast to more than double from $30bn last year to nearly $80bn by the end of the decade

FT IT Focus

Mobile computing: the portable PC provides an extra dimension to computing

The portable personal computer, and the notebook PC in particular, has established itself as a mainstream business tool helping individuals, companies and other organisations to maintain or extend their competitive edge.

Used in conjunction with fixed or wireless communications links, the portable PC provides an added dimension to computing, one which can help boost customer service, improve productivity and provide additional workforce flexibility

Reflecting this, the market for portable PCs continues to be one of the most dynamic segments of the global computer industry – fuelled by the growth of flexible working, particularly in the US and the demand for "feature-rich" notebook machines.

"Companies are acquiring portables in record numbers, indicating pent-up demand for the flexibility afforded by being mobile," noted a recent study of the European market for portable PCs prepared by International Data Corporation for Dell Computer.

World sales of mobile computers will more than double from $30bn last year to nearly $80bn by the end of the decade, an 18 per cent compound annual growth rate, according to a recent study on pen, palmtop and notebook computers prepared by Frost & Sullivan, the market research firm.

PC cards – the credit card-sized devices which used to be known as PCMCIA cards – are expected to increase their share of market revenues from *4 per cent in 1995 to 9 per cent* in 2001 as demand for "connectivity" in the form of modem devices, mobile data cards and network adapters continues to grow.

Pen-based mobile computers, mostly used in vertical markets, and palmtop or hand-held machines such as Psion's Series 3 organisers or Hewlett Packard's LX series are expected to hold a steady 2 per cent of the market while portable printers decline from their current 1 per cent market level.

"Pen technology is still fighting for acceptance outside healthcare and insurance vertical markets, where it has found strong growth for both pen tablets and PDAs (personal digital assistants)," say the authors of the Frost & Sullivan report.

While most analysts now accept that pen computing will not replace keyboards, despite improvements in handwriting recognition software, pens are expected to evolve as an increasingly popular complementary input method. Meanwhile, the palmtop market – in the US in particular – has been revived by the introduction of the HP 200LX machine which features two-way wireless communications.

The marriage of hand-held PCs and wireless telephony – in new devices from Nokia and Motorola as well as add-on enhancements to existing hand-held machines such as the *Psion 3a and HP 100LX* – is re-igniting interest in the pocket-sized computing market following disappointment with first generation PDAs such as early Apple Newtons which lacked wireless communications facilities.

However, notebook and smaller sub-notebook machines are expected to continue to account for the vast majority of world mobile computing market revenues. Portable computer sales are growing twice as fast as desktops in some markets as companies replace desktops with portables, often sold with docking stations or port replicators enabling them to plug into corporate networks easily.

Mr Guy Swarbrick, business development manager in charge of mobile computing for Dell in the UK, says that 70 per cent of Dell's portables are sold with port replicators.

"Continuous price and performance improvements make the decision to substitute portables for desktops easier," says Frost & Sullivan. "Businesses in Japan commonly use portables now as their primary computers."

There is further evidence of this trend. According to an independent study conducted for AST Computer last autumn, 43 per cent of respondents said they expected that the notebook PC would replace the desktop machine to some extent and 31 per cent claimed to have already seen some evidence of this trend.

The same study suggested that the increased amount of home working was a key factor driving corporate portable PC purchasing decisions – 82 per cent said an increase in home-based working was accelerating the take-up of notebook computing.

Nevertheless, the IDC report for Dell suggests that despite the high adoption rate for portable computing, many companies are failing to get the most out of their machines. In Europe, for example, less than half the companies using portable PCs support remote communications, even just for e-mail. In the US, that percent*age exceeds 80 per cent* and the most common application for portables is e-mail.

"For those companies that do take advantage of what mobile computing has to offer – which may mean reshaping applications and support – this creates a unique window of opportunity," the report says. "Companies have a one-time chance to gain competitive advantage simply by being smart about their usage of portable computers."

Other findings from the IDC study included the revelation that almost a third of European mobile PC users share their systems with colleagues and most still use their desktop system as their primary machine. In contrast, in the US, the portable PC is the primary system half the time at large and medium-sized compa*nies, and less than 10 per cent* of mobiles are shared.

"Optimising applications for mobile computing can be as simple as providing remote e-mail connections or as complex as developing enterprise-wide sales force automation applications that rely on major back-end databases," says IDC, "but almost any effort will be rewarded. Simply allowing users to work in new venues – at customers' sites, at home or on the road – can increase *productivity and job satisfaction.*"

The corporate decision to invest in portable computing has been made easier over the past year by a number of significant developments. In particular, as Mr Murray McKerlie, Toshiba's product marketing manager in the UK, notes the performance gap between desktop machines and their portable counterparts has been narrowed significantly.

Intel, the leading microprocessor manufacturer, has targeted the portable market for growth, bringing out low-power versions of its Pentium microprocessors packaged for the portable market much more quickly than with previous microprocessor generations. Meanwhile almost all manufacturers have abandoned the market for mono screens. For the moment, "passive" STN (Super Twisted Nematic) screens still account for a majority of sales – Toshiba, the notebook market leader, says 55 per cent of its machines are sold with STN screens. However the higher quality "active matrix" TFT (Thin Film Transistor) screens are gaining market share as greater manufacturing capacity and higher yields help erode the price premium.

Larger colour screens and longer-life Lithium Ion batteries – which provide considerably more power than earlier Nickel Hydride technology while weighing much less – are becoming the norm on top-end machines. Most of the leading notebook manufacturers have also recently introduced machines based around Intel's Pentium 133Mhz processors as they attempt to differentiate between entry-level and premium-priced machines.

Despite this, Dataquest, the market research firm, argues that it will be tough to differentiate on processors alone. "Making things even tougher is the shift towards 'value' notebooks," says Dataquest.

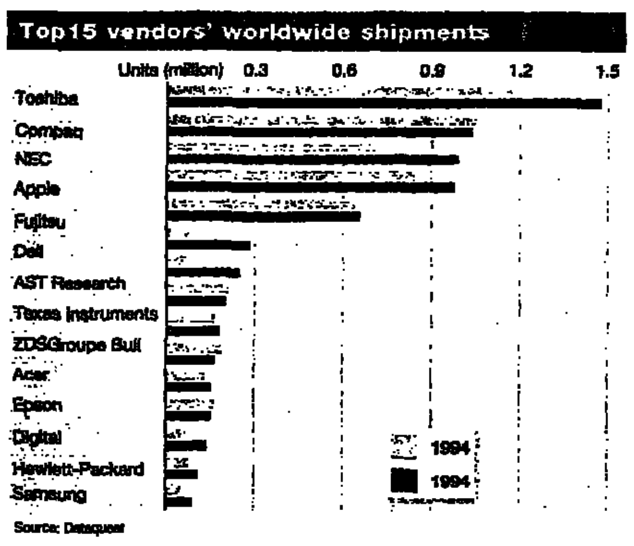
"The feature sets are now 'good enough' on value products and do not ask users to make sacrifices in terms of performance. We expect solid unit shipment growth this year, but differentiation – other than on price – will be tough."

Portable machines still sell at a marked – although reduced – premium to their desktop counterparts. Two years ago, a portable machine cost 2.8 times the price of a comparable desktop; now the premium is down to 40 per cent.

Nevertheless, strong sales and relatively healthy margins means that no serious PC manufacturer can afford to ignore the portable market. "Eighteen months ago, *notebook PCs* were perceived as executive toys," says Mr Swarbrick. "Today, *notebooks are per*ceived as genuine tools – the mobile road map is much clearer to the industry than it was before."

Derbyshire police use mobile computing in the fight against crime. Notes on an Apple MessagePad are sent from the scene to the police station via a PC card datacomms adapter which allows connection to a GSM cellphone

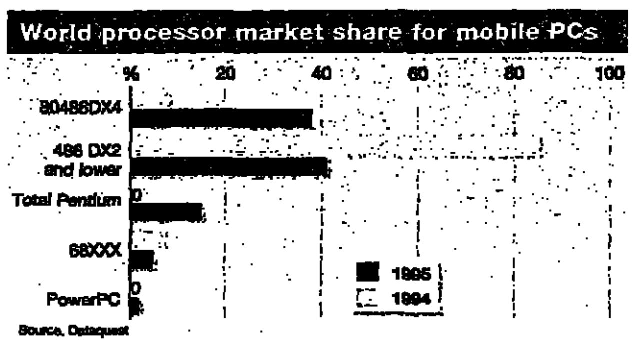
Top15 vendors' worldwide shipments



Source: Dataquest

Toshiba, the notebook market leader, says 55 per cent of its machines are sold with STN (Super Twisted Nematic) screens. But higher quality 'active matrix' TFT (Thin Film Transistor) screens are gaining market share

World processor market share for mobile PCs



Source, Dataquest

■ Hand-held devices – By George Black

Smaller and cheaper

One of the main growth areas is in field systems, particularly delivery services

Small hand-held devices have spread widely among many businesses in the past couple of years, helping many thousands of workers who had no previous experience of computers.

Their usefulness has grown as they have become smaller, lighter and more robust, able to store more data without losing it and to be used longer before batteries run out. Their small screens have become easier to read and they are easier to operate.

Communication with head office by modem is easier and cheaper, so travelling workers do not lose time on the road. Most importantly, the price of the equipment has come down a lot.

The world market for handhelds and portables for business use (including palmtops, but excluding laptop and larger machines) is valued at about £1bn a year and growing at 15-20 per cent a year, estimates Husky Computers, a leading UK-based manufacturer.

Many types of worker who use only a few business applications and who do not have to make presentations on their screens, may find it is not necessary to incur the expense of a laptop computer. They can manage better with something cheaper and lighter.

For many applications involving on-the-spot data capture, a device which can literally be held in one hand may be preferable to a laptop or subnotebook which cannot.

Software development is often the most difficult part of adopting handhelds. The software frequently has to be custom-written because the applications tend to be *specialised* and standard business packages cannot easily be tailored.

Manufacturers often work closely with value-added resellers (VARs) and users to produce the software. Most sales are made through VARs rather than direct sales teams.

One of the main growth areas for handhelds is in field systems, particularly delivery services. Rugged handhelds with touch screens instead of keyboards can solve many of their problems.

Before going on the road, van drivers collect their handhelds loaded with the itinerary and delivery schedule. The machine sits in a cradle in the cab. During a visit, a receipt can be printed out and the customer's signature on the touch-screen can be stored as proof of delivery.

Because these machines usually employ a standard Microsoft DOS operating system, the information can later be quickly transferred to a central computer system.

A number of big UK-based companies have adopted this technology in the past couple of years. BP Oil, for example, uses hand-held devices from ACS Data in its trucks in the UK and Germany.

Mr Graham Douglas, its technology development manager, says the devices have simplified paperwork, saved money and pleased both driv*ers and customers.*

"It saves 400,000 delivery notes per year in the UK, so it *is environmentally good as* well as giving a substantial reduction in time spent on paperwork," he says.

He notes that handhelds used in vehicles carrying hazardous chemicals have to be certified as safe. Some handhelds designed for general business use may not be sealed, so there might be a risk of creating sparks.

Air Products has equipped its drivers in six European countries with ACS Data devices, making it easier for them to record accurately details of deliveries and collections of gas cylinders.

Mr Hugh Coverley, project *manager, says: "We concluded* that keypads were too difficult and we needed a touch-screen system. We did not want to have to teach the drivers to type.

"They were sceptical at first, but they took to it very quickly because they did not like the paperwork and this got rid of most of it."

> Mobile field systems may be appropriate for many users

These mobile field systems may be appropriate for many other types of user – from couriers to airlines' in-flight duty-free sales staff, to public authority building inspectors, to gas, electricity and water meter readers.

British Gas's service engineers carry Panasonic notebook computers, but its meter readers and other visiting staff, with more limited and structured information requirements, carry Psion handhelds. Thames Water engineers and water readers also use Psion machines.

BT prefers Husky handhelds *for allocating work to its tech*nicians, although many of its staff use laptops.

Financial services companies, which usually give lap*tops to their sales people for* demonstration purposes, often choose to give handhelds to *staff whose job is to collect* cash from customers' homes.

Service organisations of various kinds have adopted hand-held devices, especially for engineers who maintain and repair customers' equipment on site.

Suppliers to shops, pubs and hotels use hand-held devices to take their orders on the spot and transmit them back to their base. This cuts the delivery time and can help to speed up invoicing.

Manufacturers, distributors and retailers have started using hand-held rugged scanning devices for their stock-taking operations.

*Scanning of bar codes is pre*ferred to keyboard input because it is much faster and less error-prone.

Some devices have the added advantage of being able to operate at a distance. Some can be strapped to the back of the hand so that the hand can be used to pick things up without having to put the device down.

By capturing all the necessary information at a single swipe of a bar code, scanners save a lot of time. This also enables the data to be transmitted easily to headquarters for analysis, which helps the company to identify best-sellers and worst-sellers and to plan accordingly.

Radio is becoming the preferred method of communication from the warehouse, telling the manager at once that the right order has been picked, generating the paperwork for the transaction and triggering a re-order when stock gets short.

Hand-held scanners are therefore increasingly seen as an integral part of developing electronic commerce.

The use of hand-held devices may spread not only among service providers but also among their customers.

Retailers are assessing the effectiveness of hand-held self-scanning devices for use by shoppers. Safeway supermarkets are already heavily committed to these devices as a way of reducing queueing time for customers.

Other supermarkets are watching Safeway's progress. The question now is whether that movement will gain critical mass.

The Husky FS/2, with rugged construction and single-handed operation, puts the power of MS-Dos computing into the most demanding work situations. BT uses Husky handhelds for allocating work to technicians

■ Notebook PCs – By Tom Foremski

Increasingly the first choice

This category of PC is becoming more powerful, more reliable, lighter and better-suited for a wide variety of tasks

Notebooks are more expensive than desktop systems and have lagged behind in terms of the latest technology but as their prices fall and vendors bring out improved models, notebooks are increasingly being chosen instead of desktop systems.

IBM estimates that by the end of 1997, about 80 per cent of its PC sales to business customers will be notebook computers. And US market research firm Dataquest predicts that the mobile computer market in 1996 will grow by about 30 per cent – double the 15 per cent growth rate in 1995.

Notebook computers represent the largest segment of the mobile computer market and this category of PC is becoming more powerful, more reliable, lighter and better-suited for a wide variety of tasks with large hard drives, brighter colour displays and add-on CD-Rom drives.

Notebook computers have tended to lag behind the latest microprocessors available for desktop systems because they require special versions that operate on 3.3 volts rather than 5 volts, to conserve battery life. But Intel is trying to narrow the gap and release versions of its Pentium microprocessors for notebooks within several months of the desktop versions becoming available.

Falling hard drive prices and special low power drives are also more readily available, endowing notebook computers with plenty of data storage capacity. And leading notebook manufacturers such as Toshiba and *Digital Equipment* have introduced modular notebook computers that allow peripherals such as CD-Rom drives to be easily added by users as they need them.

But the greatest boost behind the increased popularity of notebooks is changing business practices; many large organisations are changing the way they organise their offices.

Some staff no longer have a permanent office desk and instead reserve time at a company office in a similar way that they might reserve a hotel room. *Their files and personal* effects are stored in moveable file cabinets and when they return from a road trip, from working at home or from working at a client's site, they book time at a desk in the home office and simply plug their notebooks into the office local area network.

"More and more people travel from office to office and notebooks allow them to take *everything* they need with them," says Mr Bob Cushing, European marketing director at 3Com, which makes Lan cards for notebook computers.

"This way of working allows companies to assign a computer to an individual rather than to a physical location. The computer becomes more of a personal computer than the desktop PC."

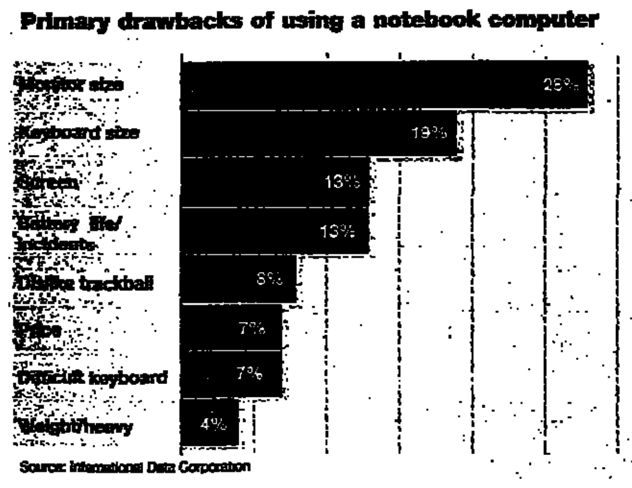
According to Dataquest, the leading manufacturers of mobile computers are Toshiba, Compaq Computer, NEC, IBM, Apple Computer, Fujitsu and *Dell Computer.*

The key trends this year are for lighter notebooks such as Digital Equipment's HiNote Ultra II, which is among the thinnest and lightest, at about 4lb. Dataquest notes that in 1996, most notebook computers will be built around powerful Pentium microprocessors compared with Intel 486 DX4 microprocessors which formed the core of most notebooks shipped in 1995.

"As the market completes the progression to the Pentium architecture this year, we expect a major shift in product mix for the top vendors in the form of a major emphasis on value notebooks," said Mr Mike McGuire, senior industry analyst at Dataquest.

These value notebooks will be cheaper models without some of the high-end features of current models.

Primary drawbacks of using a notebook computer



Source: International Data Corporation

Notebook computers are still more expensive than desktop computers and they offer PC manufacturers a chance to make some money and escape the razor-thin profit margins on desktop computers.

But producing a notebook computer is not easy, and several PC companies have faltered because of the increased development costs required and the manufacturing challenges.

Intel's efforts should help to make notebooks easier to manufacture – and also cheaper for buyers.

Intel is already the largest producer of motherboards for desktop systems. Motherboards hold the core electronics of a PC, the microprocessor, memory and other associated chips. PC manufacturers often buy motherboards instead of designing their own, to get into the fast-changing PC market more quickly.

Intel is discussing plans to manufacture notebook motherboards. With a notebook motherboard from Intel, a computer manufacturer just needs to add a case, keyboard, display and some extra chips.

Intel is likely to upset some of its microprocessor customers who would prefer to keep the notebook market a difficult one to enter for newcomers.

With an Intel notebook motherboard, virtually any company large or small, will be able to offer a notebook computer, leading to more competition and lower prices for customers. However, Notebook manufacturers will still be able to differentiate their products with custom designs that stress key features such as weight.

As more staff choose notebooks instead of desktop PCs, organisations face new challenges in supporting those users.

Notebook users tend to play around with the *configuration* of their systems more often, which leads to problems running some applications. They also tend to load non-standard software. And it is also more difficult for companies to make sure that their notebook users have the latest version of software applications because the computers are off site so much of the time.

Ensuring that staff are using the latest data files, such as price data, or sales figures, is another challenge that requires good synchronisation software that can automatically update notebook files.

But despite such challenges, the future for notebook computers is assured, and it takes the PC into a more flexible environment, matching changing work styles and business.

■ Docking stations and Lan cards – By Tom Foremski

New products on the way

For many notebook users, local area network cards are a good option when docking stations are not available

Docking stations and local area network (Lan) cards are the key bridging technologies that turn notebook computers into full featured computers, capable of rivalling the best desktop systems.

As corporations upgrade their systems, many employees are choosing notebook computers in combination with docking stations and Lan cards that allow them to access peripherals such as CD-Rom drives and office Lans. New developments in docking stations and Lan cards have made these products more affordable and also improved them – and new products out later this year promise to make this category of computer products even better.

Docking stations provide notebook users a way of plugging the notebook into a series of ports that give them access to peripherals such as full-sized keyboards, desktop monitors, Lan connections and storage devices such as hard drives and CD-Rom drives. One disadvantage of most docking stations has been that they do not allow what is called "hot docking" – plugging a notebook computer into a docking station while it is on and running an application.

Microsoft Windows 95 supports a feature that allows notebook users to plug into docking stations while the notebook is in a suspended mode but not all docking stations yet support this feature.

The notebook user must make sure to switch off the notebook, plug it into the docking station then restart the computer – a time-consuming process that most users would rather avoid. This situation is set to change with a new chip set developed by Intel called the 380 Dock Set which will allow notebook makers to create docking stations that will allow users to dock their notebooks while they are still on. The chip set will be available by the middle of this year and the first docking stations based on the chips should be out by the end of this year.

Other companies, such as PicoPower, are also offering hot docking technology. PicoPower's SmartDock products will be available later this year in a chip set offered to docking station manufacturers. With SmartDoc chips, the docking station automatically detects if the notebook computer is on, and also allows users to disconnect their notebooks without danger of data loss. It will also reconfigure the system automatically, depending on the status of the notebook.

Compaq Computer is also working on its own hot docking technology. However, these different hot docking technologies are incompatible, which means that users must be careful to use the right type of docking station to ensure compatibility with their notebooks.

Docking stations also vary in what features they offer and are available in a variety of forms from simple port replicators to more sophisticated versions that allow users to insert their notebooks into a docking station as if they were inserting a videocassette tape into a VCR, with the port connections made automatically.

For many notebook users, Lan cards are a good option when docking stations are not available. Based on the PCMCIA standard, Lan cards give users the ability to connect to Lans, whether at their place of work or when visiting clients.

Leading vendors of Lan cards include 3Com, Megahertz, Motorola, and Xircom. Because they are based on the PCMCIA standard, cards from different vendors should work with all notebook computers that have PC Card slots.

"One of our most popular products is our modem-Ethernet card which offers two functions yet just takes up one card slot," says Mr Bob Cushing, European marketing director at 3Com. "This allows users to plug into the office network and also work from home."

Lan cards are also increasingly found in versions that operate on 3.3 volts, which helps to conserve power for notebook users and extend battery life. This makes the Lan cards more compatible with notebook computers which operate on 3.3 volts.

Wireless Lan cards are still in development – but could further add to the value of notebook computers. With a wireless Lan card, no physical connection to a Lan through Lan cards or docking stations is necessary. Wireless Lan connections also mean that companies can move staff around an office more easily since they avoid the expense of running new cables.

However, wireless Lan cards are a lot more complicated than regular Lan cards which have a physical connection. For one, they are not as fast as an Ethernet card – with data transfer rates in the 600 kilobit per second range rather than the 10 megabits per second rate available to hard-wired Ethernet users. The wireless data rates are fine for e-mail but are frustrating for users trying to transfer large files or applications.

New wireless Lan technologies are being developed that could dramatically increase data transmission speeds but it may take several years for these technologies to be adapted for notebook users.

■ Portable modems and multifunction PC cards – By Philip Manchester

Expanding capabilities

IBM and Toshiba are using a technique called Digital Signal Processing (DSP) to combine many functions into a single adapter

Many innovations in PC technology are the result of attempts to make computing mobile. The demands for miniaturisation, low power consumption, improved battery technology, better screen technologies and small, high-capacity disk storage all stem from the need to make computers smaller and lighter.

The development of the PC card (formerly PCMCIA) is another example. The PC card takes the place of cumbersome adapter cards which are used to expand the capabilities of desktop computers – typically, to connect PCs to local area networks (Lans) or the telephone network. The PC card, which comes in the form of a "plug-in" module about the size of a credit card, does the same job in a portable computer.

Until quite recently, PC cards were built to carry out a single function. But the demand for new features has pushed manufacturers to design dual- and multi-function PC cards: "The manufacturers are shaping the direction by sticking to a design with only two PC card slots or ports. There is no sign that they will increase this," says Mr Joe Nash, export sales manager at PC card builder Portable Add-ons.

"Usually one port is committed to an Ethernet Lan connection and the other to a modem. But if you can double up by putting both on the same PC card you can leave the user with other possibilities for *using the other port," says Mr* Nash.

Portable Add-ons has recently launched a new range of PC cards which combine network connections, modem and fax features in a single plug-in card – leaving a spare slot in a portable computer for such uses as GSM and multimedia.

GSM stands for General Systems for Mobile – the European-wide standard for cellular telephone communications – and is of growing importance in the mobile computing market.

While the PC card goes some way towards solving the problems of the size and weight of adapter cards, another recent development promises even better power-to-weight ratios. Leading portable computer manufacturers IBM and Toshiba are using a technique called Digital Signal Processing (DSP) to combine many different functions into a single adapter.

Smaller and lighter: the water industry uses a Toshiba Portégé in the field

DSP has its origins in the esoteric world of engineering – especially for telemetry, speech and acoustics processing. The complexities of unravelling high-speed bit streams from measuring equipment or from speech recognition demand a special form of input-output processing. DSP provides this – both to speed up translation of signals from one form to another (digital-analog and vice versa) and to accommodate a wide range of different signal sources.

A DSP microchip can be programmed to handle any kind of digital signal from a video or audio stream to a communications session. More importantly, it can be changed at *any time to process different* kinds of signals.

"DSP lets you dynamically program the chip to process things like speech recognition, video and modem use," says Mr Vincent Smith of IBM's personal computer business. "We have incorporated DSP technology into our leading-edge portable computers and see it as a major change," he says.

IBM's top Thinkpad portable computers include a proprietary DSP product called Mwave. It handles stereophonic audio, data-fax modem traffic and full telephony functions, including a two-way, full-duplex speakerphone and telephone answering and voice-mail features. IBM is also building the Mwave DSP into its Aptiva brand mass-market desktop computers for multimedia use.

Mr Smith says that DSP is especially useful in portable computers because it acts as a buffer against future technology developments:

"Currently it is more expensive than the PC card option and we are only using it in our top-end portables. But it is a good way to insure against technology developments. You can upgrade the DSP with software so, for example, you can change from a medium-speed modem to a high-speed modem by loading a new program from a floppy disk," he says.

He adds that DSP offers the possibility of exciting new uses for portable computers: "You can process any kind of digital signal by just writing a program. I know someone who is using it to build a radar device at much lower cost than traditional methods. There are all sorts of possibilities," he says.

Mr Murray McKerlie, product marketing manager at Toshiba UK, is equally enthusiastic:

"*DSP is definitely the start of* a trend and we would expect it to have an impact on sales of modem cards in the next couple of years. You can put full voice and data telephone features, network connections and fax in a DSP. You don't need a PC Card modem," he says.

Last month, Toshiba launched the first of what it expects to be a growing range of portable computers which feature DSP technology. "We have started by putting DSP into the top-range portables. But we fully intend to bring DSP right down the range soon," Mr McKerlie says.

It is only a matter of time before DSP will make current adapter card technology obsolete – something that third party card-builders must take account of.

"They have to stay one step ahead of the PC manufacturers. We are building more functions into portables to reduce the size, weight and the amount of silicon in our products," notes Mr McKerlie.

■ Managing virtual networks and wide-area Lans – By Philip Manchester

Fresh strategies are needed

VPN services are one of the fastest-growing areas of networking. Many companies are turning to outside suppliers to provide their network infrastructure

There was a time when managing a company computer network was relatively simple. The network infrastructure – the cables, connections and software – were all within the boundaries of a company's offices and under the direct control of a company's technologists.

But this is changing fast in a world where networks extend beyond the reach of individual company control. Networks in the 1990s are less easy to define and new strategies are needed if they are to be managed effectively.

There are two increasingly popular approaches to the expansion of networks. One is to buy in network services from a virtual private network (VPN) supplier; the other is to extend the reach of established local area network (Lan) technology to the wide area network (Wan) to create a "wide area Lan".

In both cases the aim is to provide a single view of the company network both from a usage and from a management perspective.

VPN services are one of the fastest-growing areas of networking and many companies are turning to outside suppliers to provide their network infrastructure. Using the analogy of the information superhighway, a VPN service is similar to a motorway trunk road; it gives companies a basic carrier service for their data networks.

A recent report from market researcher Ovum forecasts, for example, that the US market for VPN services will grow from \$3.6bn in 1995 to \$5.5bn in 2005.

The market in Europe and Asia-Pacific is expected to grow even faster, from \$100m last year to \$7.9bn by 2005.

Many companies, however, are looking at extending the concept of their internal Lans to the Wan so as to retain control over their networking resources.

"The distinction between the Lan and the Wan is becoming more blurred – especially in the context of Internet and 'Intranet'," says Mr Graeme Allan, UK marketing manager at network management specialist Bay Networks.

"There is a growing trend towards managed services like VPN because of the frustration that companies have faced when building and managing their networks. We see the answer in what we call 'smart outsourcing'," he says.

Mr Allan defines smart outsourcing as a way for companies to keep control of the important part of their network and leave the lower level network transport to the service suppliers:

"It is important that businesses do not throw the baby out with the bath water when they look at outsourcing network services. They must keep some knowledge and expertise in their own organisations. If you give away too much, costs can escalate.

"If you don't give away enough, then you won't save any money," he explains.

According to researcher IDC, Bay Networks took 51 per cent of the world market for "low end" Lan management software in 1995. Mr Allan says this lead has come from recognising the importance of reaching beyond the Lan and seeing company networks as a whole.

Bay Networks' Optivity network management software works on all of the leading computing platforms from Windows up to IBM.

"*We have been working for* some time to extend Lan concepts to the Wan and extending our reach to all platforms that companies use. Our recent acquisition of Armon gives us the opportunity, for example, to see remote network components as part of the scheme. More important, it gives us an application view – something that has not been possible before."

In simple terms, the Armon technology allows network managers to see network traffic in terms of real business applications. It monitors the whole network and lets a company adjust traffic flow according to specific application usage.

"Traditionally, network management has concentrated on lower level traffic movement – unrelated to the application. But we see that real management of the network is not possible unless you can get an application view," says Mr Allan.

He adds that it is important for this function to remain under the control of the company: "It is essential to keep *this in-house. You can out*source the grunt work – the lower level stuff. But you must keep control of the higher level application view because you are the only one who understands the business implications."

Managing networks is never likely to be easy – especially against a background of rapidly changing technology. As companies place increasing emphasis on mobile workers and distributed applications, management of the network and those who are attached to it is likely to cause more headaches for network managers.

Bay Networks – along with other network management software suppliers such as Cabletron and 3Com – are now able to provide the tools to help. But the final responsibility will, as ever, rest with individual companies. They must take the initiative and adopt a balanced approach which combines their knowledge of business priorities with the technology expertise of the specialist.

■ Gizmos and gadgets – By Michael Dempsey

New arm of the IT industry

Systems that are self-contained and totally portable have special appeal

Varian Oncology Systems is a $1.1bn US corporation that sells radio therapy systems for the treatment of cancer and Mr Adrian Orchard, Varian's quality assurance and information systems manager for the UK, travels to the company's Palo Alto headquarters five or six times a year. On every trip he is accompanied by what he calls his "little blue friend."

This companion is a £149 Zip drive from Iomega which allows users to store large amounts of data on a small device the size of a Walkman. The Zip drive slots into any PC or portable with its own special disks containing up to 100 megabytes of data, as opposed to 1.44 megabytes on a typical 3.5-inch disk.

Mr Orchard explains the appeal of the Zip drive: "I present to people within the corporation and I have to carry around presentations that occupy a lot of disk space."

He has found that the Zip drive allows him to load whole libraries of clips and images and he doesn't have to worry about losing masses of data held on the hard drive of his laptop. The Zip drive and its disks will take all the data he needs and the product makes company data more secure.

"I used to back up company-sensitive information on the hard disk of a portable PC, but a PC can be stolen. Now I store all the files I'm going to use on two or three Zip disks and keep them in my pocket."

He believes this inexpensive product has made a big difference to the way he works, enabling him to alter sophisticated presentations on the move.

Presentation programs such as Microsoft's Power Point have created their own problems, demanding more and more storage to offer the very facilities that users demand. Mr Orchard sums up the way one small item can resolve this problem: "Zip extends the capability of my Notebook, particularly as modern software is so demanding on disk space."

Iomega has shipped more than 1m Zip drives, transforming itself into a $326m corporation in the process. The very phrase "my little blue friend", which Mr Orchard uses to describe the product, points to the peculiar appeal of IT systems that are self-contained and totally portable.

Users seem to derive intense satisfaction from practical equipment that can be carried on the person – and this is the dividing line between Personal Digital Assistants and laptop PCs.

Psion palmtop computers continue to rake in cash for this UK company and Psion announced a 48 per cent rise in turnover to £90.5m in 1995. Lloyds Bank is one financial institution that wants to use Psion's success to attract high-flying customers, and the bank has produced an electronic chequebook package for Psion palmtops. Presently on test in the UK, the package allows customers to download a payment order to their bank via a modem.

With 1,800 branches and 7m customers, Lloyds describes this experiment as "just one method of delivering services." But a spokeswoman admits that banks have noticed a gap in the market for truly mobile services. "We're looking at ways to access banks from hotels or trains."

A £3m High Performance Radio Local Area Network, or Hiperlan, project funded by the EC has recently concluded that traditional computer networks can be replaced with an approach dedicated to the executive on the move. The scheme involved industrial partners such as French aerospace giant Dassault and academic contributors such as the UK's Bradford University.

Radio links between PCs are already commercially available, but Stephen Barton, Bradford's professor of signal processing, says Hiperlan has proved the feasibility of a more exciting development. "We have built a demonstrator for ad hoc networking. This means laptop users meeting in an airport lounge and networking without any wired connection."

Prof Barton believes that a plug-in card with a 4cm extension acting as an aerial will soon allow business users to conduct group work sessions on laptops in any environment.

The demand for serious computing power on the move is unabated. Xyratex, a £280m UK management buy-out from IBM, has just launched Maxit – a portable drive which retails for £299 and contains 540mb of data, the equivalent of one PC stuffed to the gills with information.

The rise of the Internet has spurred Xyratex to bring this device to market. Well-travelled users loading huge chunks of graphics and text from the burgeoning number of Web sites guarantee Maxit a ready market.

"It is ideal for Net surfers that want to take a load of stuff off the Internet," Xyratex explains. Maxit is designed to be compatible with Apple graphics workstations, and Xyratex reckons the radically-oriented staff who drive these machines will be proud to wave a brightly-coloured drive about at airport security.

The raft of storage products fits the pockets and needs of an emerging user-class. Mr Paddy Holahan is president of the Irish software house East Coast Development which produces Winlynx Laptop Backup (WLB), a £100 computer program written to allow Zip and Maxit users to blast data onto their cherished gadget instantly.

Mr Holahan underlines the message that well-travelled computer-literate executives need a new level of security: "The laptop market is growing extremely fast, many people use a portable PC as their primary machine and need security to match that." The power offered by physically attractive products allied to the convenience of software such as WLB is creating a new arm of the IT industry.

Taiwanese manufacturer Plustek has latched onto the demand for advanced equipment that fits into a briefcase. Its £99 Pagereader is the size of a pencil case and can be plugged onto a PC to permit document scanning on the spot.

Pagereader appeals to the presentation-conscious business traveller who discovers a printed image and needs to insert this into his material instantly. Plustek is only 10 years old, but it has joined the ranks of companies making good money out of a market which is emerging from a marriage of physical need and popular aesthetics.

Lloyds Bank has produced an electronic chequebook package for Psion palmtops Picture: Trevor Humphries

■ New technologies – By Tom Foremski

Innovation is the key

With more power squeezed out of batteries, notebooks can be lighter, smaller and use faster microprocessors – which typically use more power

New battery and screen technologies are emerging that help to lower the price of notebook computers and extend battery life – to offer users longer working time.

Battery life has always been a key focus of notebook manufacturers and a key limiting factor in the design and weight of notebooks. Early notebook computers had just two hours of operating time between recharges, but the latest battery technologies and special power-saving features have extended the operating life of most notebooks to four hours and more.

Battery technology has always been the weak link in notebook computers. While notebook microprocessors, memory chips and hard drives have grown more powerful every year, battery technology has changed more slowly. This has forced notebook manufacturers to focus on ways of saving battery power by using chips operating on 3.3 volts instead of 5 volts; using power management applications that selectively shut down or idle notebook functions such as the hard drive; and reducing microprocessor speed for simple tasks.

Companies such as Duracell, for example, have built smart batteries – rechargeable batteries with chips inside them to help more accurately gauge how much power is left.

Earlier software-based power gauges were inaccurate, requiring a 20 per cent margin of safety so that users could save files before the power gave out completely. This was because monitoring how much battery power was available depended on the battery's chemistry, its age, temperature and other factors difficult to measure.

Smart battery technology gives a more accurate figure of power available, freeing up much of the 20 per cent of the power that remained unused.

Smart batteries also monitor the recharging process, making sure that the battery is correctly charged, charged to full capacity and helping to extend the number of times the battery can be recharged. Previous methods of recharging a battery could leave 10 per cent of its capacity uncharged, further limiting battery life. With more power squeezed out of batteries, notebooks can be lighter, smaller and use faster microprocessors – which typically use more power.

Changes in battery chemistry are also important. Nickel-cadmium (NiCd), and nickel-metal-hydride (NiMH) batteries are gradually being replaced by lithium-ion (Li-ion) batteries which offer 2.75 times more energy per unit weight compared with NiCd batteries. But supplies of Li-ion batteries are limited because there are few manufacturers.

Li-ion batteries are more expensive and can also be tricky to use, Apple Computer last year found some problems in its PowerBooks using Sony Li-ion batteries which had a fault that caused some units to burst into flames. Li-ion batteries are also more sensitive to recharging and can easily be damaged by overcharging.

Zinc-air batteries are another technology that offers long life, but their use has been limited because of their bigger volume and weight. However, they are useful as secondary batteries that users can carry with them separately and plug in as needed. They are capable of powering a portable computer for as long as 12 hours.

Replacing NiCd batteries also has important environmental benefits since cadmium is a toxic substance and the disposal of NiCd batteries can be a problem.

Yet another battery technology that is still in its early stages of development but that shows promise, is lithium polymer. This plastic-like battery material is flexible and can be formed into a variety of shapes. Notebook designers can tailor lithium polymer batteries to the design of the computer rather than the other way around – and make better use of unemployed space in a notebook.

Several companies are also working on manganese-oxide-zinc and nickel-zinc batteries, but so far these have shown important disadvantages in terms of limited charge-discharge cycles and slow recharging.

In terms of notebook displays, the key technology focus has been not in the displays themselves but in manufacturing the screens. Creating a liquid crystal display is similar to producing a chip and requires the same attention to cleanliness and accuracy except that the LCD display is much bigger than a chip. Manufacturers have to accurately place transistors behind each pixel; multiple transistors in the case of colour displays. Each transistor must be connected to display control circuitry.

A typical LCD display has 640 by 480 pixel resolution, or 307,200 pixels. Creating a flawless display is very difficult which is why a typical notebook display may have a dozen or more dead pixels without being noticeable. Even with such a margin of error, the number of unusable LCDs produced has been low.

However, improved manufacturing techniques have greatly improved yields, resulting in lower manufacturing costs and lower prices. And as South Korean- and Taiwan-based manufacturers have emerged to challenge the dominance of the Japanese LCD producers, the combination of competition and improved yields has led to much lower prices for notebook computers.

The ideal LCD display for notebooks, would be one that mimics the high resolution of a paper document. Such a display would need almost 7m pixels and Xerox subsidiary Dpix says it has developed such a display. However, DpiX is producing the display in small quantities for custom applications such as displays in military aircraft and it will be several years before the displays can be manufactured in big numbers and at a price affordable for notebook use.

Times Square, New York, after a blizzard in January virtually shut down the city Picture: AP

■ Remote access and communications software – By Geoffrey Wheelwright

Wintery window of opportunity

Symantec saw a great chance to seed many more copies into the East Coast corporate world

When the icy blast of winter hit the East Coast of the US with a vengeance last January, and thousands of people were trapped at home, unable to get to work, personal computer utility software maker Symantec spotted an opportunity.

The opportunity was to promote the company's remote access communications software – which could allow snowbound workers to get to work without leaving home.

So Symantec's Delrina Group announced "Operation Snow Storm", a so-called "relief effort" to make 500 copies of its popular pcANYWHERE for Windows remote computing software available to corporations free of charge (it normally sells for about $129) to assist workers unable to reach their offices. Although Symantec claims more than 2m active users for the product, the company saw a great chance to seed many more copies – along with a compelling reason for them – into the East Coast corporate world.

The pcANYWHERE for Windows Remote Control product is supposed to allow users to work from home, using their home PC to access the office. It requires a PC equipped with either Microsoft's Windows 3.1 or Windows 95.

"With the excessive amounts of snow we have experienced, it is becoming increasingly difficult to get to the office. This product enables workers to stay at home and work as if they were sitting at their desk," said Mr Christopher Calisi, general manager of the Communications Business Unit, at the time of the snow storm.

"We are very concerned with the risks individuals are facing this winter, in light of the hazards of travel under such extreme conditions."

The software allows employees to dial into their office PC. Once connected, users can log into the network, access documents and remotely operate both Dos and Windows-based applications. Symantec claims that pcANYWHERE further increases productivity by enabling users to remotely access devices on their PCs and networks, such as printers and CD-Roms. "This enables people to remain productive from the comfort and safety of their own home," added Mr Calisi.

Meanwhile, rival Stac Electronics is hitching its star to the expected success of Microsoft's upcoming release of Microsoft Windows NT 4.0 with the announcement that it will release a new version of ReachOut, its remote access software, following the shipment of the new operating system later this year.

"As more and more corporate users migrate to Windows NT, Stac plans to meet their demands by developing ReachOut with a superior design that will take advantage of the 32-bit architecture," said Mr John Bromhead, vice-president of marketing for Stac. "ReachOut will deliver the fastest, most reliable performance under Windows NT 4.0."

The company says ReachOut's design allows it to detect screen changes in real time and transmit them to the remote viewer as they occur. Consequently, the image on the ReachOut viewer screen stays synchronised with the user's keyboard and mouse actions.

> The image on the viewer screen stays synchronised

Stac claims that alternative software saves up screen changes and sends them at intervals, causing the viewer screen to lag behind what the user is doing.

"ReachOut users see each character as they are typing, rather than having to wait until half a sentence is typed before they get any feedback," claimed Mr Bromhead. "ReachOut's architecture provides a much faster response time for the user."

However, all providers of remote access software may find themselves losing market share to Microsoft Windows 95 itself – which includes built-in remote access capabilities. In addition to the ability to dial in to Windows NT's RAS (Remote Access Server), Windows 95 supports dial-in to Novell NetWare networks running NetWare Connect; dial-in to another Windows 95 machine using the Windows 95 built-in single-line remote network server; dial-in to remote access server products such as those from Shiva Corporation and others; simultaneous support of the NetBEUI, IPX, and TCP-IP network communications protocols and dial-in connection using the popular PPP standard.

■ Wireless mobile data services – By Philip Manchester

Mobile workforce guarantees more growth

Many companies are looking for less expensive alternatives to the advanced digital network services

If there were such a thing as the "ether", then it would be overflowing by now. The ancient idea that the world was surrounded by a mythical substance called the ether is, of course, as plausible as a flat earth. But if it did exist, the ether would be in short supply. It would be full of radio waves, TV signals and microwaves.

An ever-growing volume of communications now takes place without "wires" and there are signs that the trend will continue. An increasingly mobile workforce and a demand for wireless communications services guarantees continued growth.

There are several different markets for wireless communications services – ranging from mobile cellular telephones based on expensive digital radio networks to low-cost, data-only services based on established analogue systems. While the advanced digital network services generally attract more attention, cost is an important factor and this is leading many companies to look for less expensive alternatives.

"We can set up a base station for about £25,000, which keeps our costs down and lets us offer fixed rate subscriptions to our customers," says Mr Richard Harris, managing director of UK services supplier Cognito. "Our competitors need about £100,000 to set up a base station and a full-function cellular telephone network costs about twice that."

Cognito, set up as privately-financed management acquisition from TI Group in 1992, specialises in data-only wireless services using a proprietary digital networking technology aimed at field service engineering operations. Customers include Rank Xerox and Philips Medical Systems.

"We charge a fixed rate per unit of £50 a month, which means the customers know exactly what their monthly costs will be. We can also link to other networks such as Orange and Cellnet if the customer wants the facility," Mr Harris explains.

Typically, users of the Cognito service buy what Mr Harris calls an integrated solution. Cognito provides the radio network – covering 85 per cent of the UK – and the mobile terminal. The customer provides the application systems.

"We have experience staff who can integrate the radio system with existing applications. This means a field engineer can receive details of work to be done through the mobile terminal and can notify central control when the job is complete. Engineers can also order spare parts through the terminal," Mr Harris says.

The main advantage of this approach, he says is that it removes the need to keep a large number of staff at the company base, making and receiving telephone calls – again reducing costs.

There are other advantages: "Much of this sort of work involves transposition of data. A call from a customer is taken over the telephone and the despatcher phones the engineer who writes down the details. On completion of the job, the engineer then notifies the central control by phone.

"But with mobile data services, the data need only be entered once when the customer makes the original call," says Mr Harris.

National Band Three (NB3), another UK services supplier, takes a similar approach – but uses mature analogue radio networking. NB3's customers include TNT Express, Boots and the British Waterways Board. "Mobile communications is about improving productivity and customer service. If you can despatch jobs through a wireless data service, you can cut costs and improve service," says Mr Nigel Rodliffe, marketing manager at NB3.

> By using analogue radio technology, NB3 can offer voice services alongside the data services

NB3, like Cognito, covers most of the UK. But by using analogue radio technology, it can offer voice services alongside the data services: "We have developed a way of integrating voice and data and can keep costs down for our customers," says Mr Rodliffe.

NB3 charges a fixed tariff of £63 a month for each subscriber. An initial set-up cost of £199 covers the radio terminal and NB3 also offers a special customised Psion palmtop computer for data processing at a cost of £899.

"Our aim is to combine technologies that can be adapted to the way an organisation works. This means that we can link up with other computer applications the customer might have – for job despatch, fuel management and global positioning systems for vehicle location applications, for example. And if they have a Microsoft ODBC application, we can link to that as well," says Mr Rodliffe.

He adds that the analogue radio technology, while not necessarily the most advanced, is reliable and robust: "We are not ground breaking in terms of technology. But we are working on making the idea of plug-and-play low-cost radio communications a reality. In our target market, speed is not essential and our technology is very cost effective."

Mr Rodliffe adds, however, that NB3 has plans to introduce digital networking in the near future.

Cognito and NB3 both face significant competition from high-profile suppliers such as Cellnet, Vodaphone and Orange as the demand for wireless communications grows. They remain confident, however, that their pragmatic approach assures them of a healthy market for some time to come. Mr Harris notes, for example, that his company is on target for 50 per cent revenue growth this year. He expects annual turnover to increase from £4.2m in 1994-95 to £6m in 1995-96.

NB3 offers a customised Psion palmtop for data processing

■ Data cards and GSM – By Rod Newing

Data unleashes the power

Data services have only been available for 12 months but they could become an essential business tool

The handset looks and feels like a telephone, but it is really a four-platform terminal encompassing voice, data, fax and short messages," says Mr Simon Farr, product manager for mobile data products at Mercury Communications. "Data unleashes the power of the digital networks, so there is no reason not to be a member of the data community."

A cellular data card fits into the PCMCIA slot on a personal computer. It has a short lead which connects it to a cellular telephone handset to provide wire-free data communications from a mobile computer. A data card performs a similar function to a traditional modem, allowing the business traveller to send and receive electronic mail and faxes, connect to his or her corporate network, use public servers and databases and access all the resources of the Internet.

Mobile computer users can do this wherever and whenever they want to, free of telephone sockets. Because hotel telephone surcharges are so high, the mobile is often a cheaper alternative to using telephone sockets in a hotel room – and solves the problem of incompatible modem leads.

Adoption of cellular data services is likely to be speeded up by the availability of new lightweight computer terminals for executives who do not want to have to carry a bulky notebook computer about just to keep in touch with their e-mail.

The arrival of the mythical mass market personal digital assistant is still awaited, but in the meantime Hewlett Packard has announced the HP OmniGo 700LX Communicator Plus. This integrates the HP 200LX palmtop PC with a Nokia data card.

The Psion Series 3a will connect through a special combined battery and data card attached to the handset to give short messages, and e-mail is coming shortly. In future, an infra-red connection will replace the cable and allow the data card to be carried in the handset, allowing lower voltages to be used in hand-held computers.

Nokia has approached the problem from the opposite direction, by announcing its 9000 Communicator, which adds a personal organiser to a handset. The casing opens out to reveal a small screen and keyboard. Very importantly, both the 9000 Communicator and OmniGo 700LX will link to a PC to allow users to transfer their data.

> GSM, used extensively in western Europe, is spreading to other parts of the world

"Products like the Nokia 9000 will take us into a whole new world of mobile communications," says Mr Nick French, PA Consulting's global head of mobile communications. "It means that as long as I am in a GSM coverage area, I can communicate data from the phone without taking a PC. We will see more examples of this type of product to support data services.

"From the service providers' perspective," he continues, "they should stop providing huge subsidies to the man in the street for his wife to make the occasional telephone call while shopping. Instead, they should subsidise the costs of these appliances and their associated data services. The usage is much greater and they could generate more call time. It is a benefit to the user to get data remotely to increase productivity, the operator makes more money, and everybody wins."

Global System for Mobile Communications ("GSM") is an international digital cellular radio standard which is used extensively in western Europe and is spreading to other parts of the world, being adopted by systems in more than 100 countries in total. However, the US and Japan are using several different standards and even their GSM systems are not always implemented in compatible ways. In Europe, PCN standards, such as Orange and Mercury One-2-One, are being implemented which are not compatible with GSM.

In an increasingly global business environment, this means that the data service may not yet be available in important areas to which the user travels. Roaming agreements only work between systems using the same standard, so the solution is that manufacturers will produce terminals with multiple nodes built in, capable of supporting each of the main systems.

"The US imposed an analogue standard, built a good system and exported the technology, but they have opened up their frequency to any digital technology," explains Mr *Martin Garner*, managing consultant for mobile communications at Ovum, the research analysts. "Standards give economies of scale for handsets and network equipment, so the manufacturers are happy to invest. Europe has learned the lesson and is standardising on GSM, just as the US is unlearning its lesson by creating uncertainty for manufacturers."

Data services provided by GSM systems can offer high performance with exceptionally few errors, but only at rates up to 9,600 bits per second. Higher rates are available with compression and slow-scan TV has been demonstrated over GSM. This rate, which compares with the 28,800 rate of the latest modems, will be noticeably slower than users have come to expect from their home and office connections.

The constraint is the network, not the data card, so the solution to this will be to use several connections at the same time, known as "multislot." s many as seven connections can be used and Nokia has demonstrated data transfer at 28,800 using three connections. "The network providers are still two years away from offering this facility, but they will get there," says Mr Mark Squires, manager of cellular data for Nokia, the world leader in data cards.

> There is still a problem of where to get expert support for older machines

"The networks are still polishing their data services, but they will get more aggressive for the business user," says Mr Squires.

"Growth so far has been faster than expected, because Windows 95 'plug and play' has helped to move the technology from early adopters to the average executive user."

However, Mr Garner warns that there is still a problem of where to get expert support for older machines, because cellular retailers have little computer expertise.

Data services have only been available for about 12 months and are still immature. Nevertheless, their use is spreading rapidly and, with more attention to speed and international coverage, they have the potential to become an essential business tool for all.

■ Taiwan – By Michael Dempsey

IT is key to economic success

PC-maker Acer is the eighth-largest computer brand in the world, employing 25,000 staff at 50 sites around the globe

Taiwan's blue chip-weighted stock index posted its biggest one-day gain in two years at the beginning of April, triggered by news that Wall Street investment firm Morgan Stanley might be about to follow Dow Jones and place Taiwan's index on its worldwide indices.

The timing of the surge, coming just after menacing Chinese military manoeuvres put Taiwan in the headlines, proves that Taiwan's economy has developed to the stage where it can weather the threat of war.

IT supply is a backbone of this economic success. Taiwan now produces 80 per cent of the world's computer keyboards. Half of all PC monitors are made in Taiwan. Acer, the $3bn PC maker founded by Mr Stan Shih of Taiwan is now the eighth-largest computer brand in the world, employing 25,000 staff at 50 sites around the globe.

The Taiwanese government is acutely aware that while IT can provide a powerful economic stimulus, it is a terrifically competitive sector.

Tom Lin, a 66-year-old former air force engineering officer is now 23 years into his second career – promoting Taiwanese products as deputy secretary-general of Cetra, the island's external trade council. Fresh from the rigours of Cebit, Hanover's notoriously wearisome IT fair, Mr Lin puts a humorous gloss on his challenging role: "I'm a 'made in Taiwan' ambassador, but I have to develop a message that Taiwan is not a shirtmaker."

The phenomenal output of Taiwan's electronics sector and the rise to world prominence of Acer should have established that fact a long time ago. But Mr Lin knows that his homeland is coming to the market in the wake of Japan's success.

Taiwan's dilemma is twofold. It supplies huge volumes of the IT industry's components, but the buried nature of items such as computer network cards means that few people know or care that 40 per cent of these are made in Taiwan.

The second dilemma is quality. How can Mr Lin and his colleagues convince the outside world that their country is not a bargain basement site turning out goods that do not match Japanese specifications?

Mr Lin is frank about the way Taiwan entered the IT market: through contract component manufacture rather than innovation. "In the past, Taiwan was the king of original equipment manufacture. But we learned a lot from this kind of work."

Now the imaginative edge is returning, claims Mr Lin.

In the world of the Asian Tiger economics, Taiwan occupies a position between Malaysia, with low labour costs, and Japan, where the brainpower needed to fuel an IT industry is more expensive to recruit. But Taiwan's mature innovators are flocking home after lucrative careers in the US.

"Thirty years ago the brain-drain was to the US; our best people chased jobs in companies like IBM. Now these middle-aged engineers are coming back to Taiwan," says Mr Lin who christens this trend a "brain-gain". He says 5,000 such IT professionals have recently returned to their place of birth to boost the island's industry, typically setting up small high-tech companies of their own.

Taiwan is fighting its down-market image through a scheme intended to reward quality and innovation. The National Award of Excellence grants manufacturers the right to use a national symbol of excellence on their goods. The Gold NAE certificate is worth £35,000 to winners; companies getting the silver award receive £16,000.

These are hardly sums to set corporate hearts beating, but a lot of organisations qualify awards. In the most recent round, 216 companies won an award, out of a field of 600.

Mr Lin is quick to point out that some judges are drawn from beyond Taiwan. Recent products that caught the judging panel's eyes included an Acer notebook and a computer mouse with function buttons on its sides.

Cetra works its 700 employees hard. "We have 25 trade shows in Taiwan and we attend 90 all over the world," says Mr Lin. A high proportion of these are in the IT sector.

Beyond the component supply contracts and the NAE symbols, does all this effort pay off? Taiwan's Plustek has just launched the world's smallest page scanner, a £99 product the size of a one-litre juice pack called the Page Reader 800. Mr Lin is convinced that a flood of ground-breaking products are in the pipeline.

Tom Lin: he says 5,000 IT professionals recently returned to Taiwan

"When I joined Cetra, very few people in Taiwan knew what international trade was. We took them overseas and showed them how to do business. Now we have the Internet and companies can get information from our own home page."

Mr Lin is visibly proud of his nation's fledgling democracy. He compares the current debate about the Internet and its uses with Taiwan's move towards its first presidential election. There are no restrictions on Web usage in Taipei. "You can send an e-mail to President Lee."

It was this presidential election that provoked a show of force by mainland China. But Mr Lee points out that many large Taiwanese companies maintain plants in China.

For Taiwanese IT specialists, Japan remains the big question. In 1995, Taiwan had a $17bn trade deficit with Japan, importing $30bn worth of goods and exporting $13bn of its own products.

Like any merchant adventurers, Mr Lin and his Cetra colleague Mr Bret Lee travel with a range of gadgets intended to impress overseas audiences. A pocket dictation machine that exploits microchip technology to dispense with a tape is the work of Taiwan's Sidex.

"We can improve technology and apply that advance in a way that is affordable in the market," Mr Lin declares, brandishing the Sidex machine. And his efforts are paying off.

In Taipei, First International Computer is attempting to emulate Acer's achievement, producing more than 100,000 desktop and notebook PCs a month. FIC is looking at a delivery channel that allows central processing units to be installed in the country of delivery so local agents can offer the very latest release of technology within the company's kit.

The Taiwanese government noted the failure of Japan to follow hardware success with software developments and targeted software as the island's next designated growth area.

A small island accustomed to shrugging off bullish behaviour from powerful neighbours clearly has a lot to offer the IT world.

■ The US – By Malcolm Wheatley

Superior results for democracy

PeopleSoft, which markets a range of client-server enterprise applications, is listed as one of the fastest-growing companies in the US

In the leafy California suburb of Pleasanton, a business park that was constructed in more prosperous times by downsizing telecommunications giant AT&T now has plenty of vacant space. Appropriately enough, a fair proportion of this space now houses the headquarters of the rapidly upsizing PeopleSoft Inc.

Listed by Fortune as one of the fastest growing companies in the US in 1994 and 1995, the nine-year-old company markets a range of client-server enterprise applications that is rapidly gaining it a big slice of the market. UK customers include Abbey National, Christian Salvesen, KPMG Peat Marwick, UK accountants, and the Department of Transport.

PeopleSoft represents a personal crusade by Mr Dave Duffield, its president and chief executive officer, to create the kind of corporate culture that

Dave Duffield: 'Happy and productive people are the essence'

he feels best suits software companies – if not the corporate world in general.

Mr Duffield, a 30-year veteran of the California software industry, vowed when setting up PeopleSoft that he would avoid all the mistakes that he had seen in other companies. "Too many companies have too many people that have lost sight of the mission," he says, recalling bitter internal battles and corporate politicking. "We didn't want fiefdoms to get in the way of serving customers."

The PeopleSoft proposition to its prospective employees is simply stated. They are expected to work hard, be focused on their customers, and be prepared to embrace change – the latter because, in Mr Duffield's words, "things are going to be different. That's a certainty."

In return, employees get an environment in which "it's fun to work," and an assurance that everyone around them will respect them and in turn be the sort of people that they can respect.

"Nine-to-five people get drummed out. Bossy people get jumped on or drummed out. People who play kissy face with the people above them and dump on the people below them get drummed out," sums up Mr Duffield. "Happy and productive people are the essence of any successful business."

The company's annual report lists the name of every employee, and is illustrated with photographs of many of them – as are the walls of the office building.

PeopleSoft's employees are empowered, in Mr Duffield's words, "to do whatever it takes to keep customers satisfied." Even if the ethos is not stated as such, the spirit of the organisation appears very much to be: "Sort out the problem first and ask approval later." This would be risible were the results not so demonstrable. Any office wall space not devoted to photographs carries gushing letters of thanks from the company's 600 corporate customers – 25 per cent of the Fortune 500 at the latest count.

Mr Duffield points out that he runs the company in this way not because of some deep-seated belief in industrial democracy, but because he believes that it will produce superior business results.

PeopleSoft was founded in 1987 to create client-server and human resource management software – which at that time were both much riskier areas than they are now. Mr Duffield apparently liked what he had seen of Microsoft's Windows 1.0 and 2.0, and spotted a growing niche in Windows-based client-server enterprise applications – "although I never expected it to grow this big."

Perhaps understandably at the time, his colleagues in his previous company did not share his vision, so he left to set up PeopleSoft.

Although the company now has a range of integrated applications that includes accounting, manufacturing and distribution functions, "human resource software was what I knew, so that was where we started," says Mr Duffield.

The added importance given to human resource management within business generally since then has undoubtedly helped, and PeopleSoft's package has slavishly followed management trends such as "competence-based development", flexible benefits and flatter organisations.

An interesting facet of the business is the extent to which the company's software development is user-driven. Mr Duffield concedes that the years he spent on the road selling software have coloured his opinions regarding the importance of customers' views in this area as well as in their expectations of service.

Every year, each corporate user is given a number of votes – known as PeopleDollars – according to the number of software licences they have. Companies such as AT&T, Hewlett-Packard and Siemens have standardised on PeopleSoft globally, and so have multiple licences.

Priorities for proposed enhancements are based on the PeopleDollar votes that each enhancement receives. Customer support and field sales personnel have a similar voting arrangement, and the results are then ranked to construct the development programme.

Mr Duffield professes to subscribe to a management theory that reckons that companies can focus on either product innovation, customer service or operational excellence – but that focusing on more than one of these at once is extremely difficult. PeopleSoft, he claims, manages to achieve the first two, but he has no delusions about the company's ability in the third area: financial controls apparently leave him cold.

"We're strictly seat-of-the-pants," he says – perhaps unusually for the chief of a $230m business. "We don't do the budgeting and nickel-and-dime stuff very well. I don't care about that stuff at all, but if I hear that a customer has difficulties with our product, then I worry about that a lot."

One consequence has already become apparent. Despite a move to new premises, employee growth continues to outstrip available space: PeopleSoft is expanding faster than AT&T is contracting. So, for the first time, PeopleSoft's one-person-one-office rule is to be broken with a move to cubicles to make better use of the available space. Characteristically, Mr Duffield is moving into the first one himself.

■ IT outsourcing – By Nuala Moran

Rumble of discontent from clients

The report found that one-third of organisations rated the problems of outsourcing as outweighing the benefits

PA Consulting has picked up a rumble of discontent from customers in its third annual survey of outsourcing, due to be published later this month.

"Even some big companies are starting to say we are not getting the attention we expected," said Mr John Little, one of the report's authors. "There is a limited amount of talent around and the explosive growth of outsourcing is spreading it more and more thinly across more and more contracts."

The report*, which surveyed attitudes and experiences in France, Germany, Denmark, Hong Kong, Australia, New Zealand, the UK and the US, found that one-third of organisations rated the problems of outsourcing as outweighing the benefits. And while two-thirds perceived more benefits than drawbacks, the survey concludes that only 5 per cent of the organisations are achieving the level of benefits which are potentially available.

More than 1,000 directors and senior managers were interviewed.

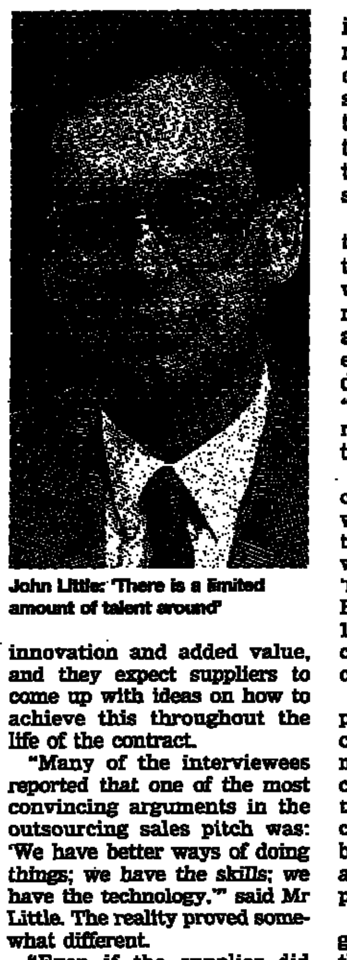
Part of the mismatch between expectation and reality is caused by what Mr Little characterises as the "A Team-B Team syndrome", where the A team makes the sale and the B team does the work.

"The members of the supplier team who do the work on designing the solution and promoting this to the customer generally move on once the contract is signed. The implementation team rarely have the same enthusiasm for new approaches, or expensive new skills, particularly where these carry any risk to the supplier's financial performance," said Mr Little.

"While the sales team may (or may not) be acting in good faith, they do not have the operational clout to enforce the sold solution." By the same token, senior management attention on the customer side moves on once the contract is set up.

The root of the problem lies with the nature of outsourcing contracts which, in general, deal only with the delivery of services. "They fail to include any definition of the relationship – in other words how the customer and supplier will work together to ensure that the benefits are delivered."

Customers are looking for innovation and added value, and they expect suppliers to come up with ideas on how to achieve this throughout the life of the contract.



John Little: 'There is a limited amount of talent around'

"Many of the interviewees reported that one of the most convincing arguments in the outsourcing sales pitch was: 'We have better ways of doing things; we have the skills; we have the technology,'" said Mr Little. "The reality proved somewhat different.

"Even if the supplier did have the skills and technology it did not have enough to go round all its customers, and only those who had the foresight to make this a contractual obligation or were too big to ignore, actually got what they were buying – and then sometimes with a struggle."

But whatever the problems, there is clear evidence from the survey that outsourcing will continue to grow. "The move to outsourcing is not about fashion or political drivers. It is about a new way of doing business," said Mr Little. "There is unrelenting growth regardless of sector, and the trend is universal."

In the 1994-95 survey, 26 per cent of respondents said they would bring IT back in-house if they could, or that they wanted a divorce in order to 're-marry' a different supplier. But when surveyed for the 1995-96 report, none of these companies had made such a change.

While PA Consulting's two previous surveys showed that cost-cutting was the main motivation for outsourcing, companies now say that activities which are not part of their competitive positioning should be outsourced to suppliers who are "the best of breed" in each particular activity.

"Obviously, people are not going to outsource if it costs them more, but they have started to look for other benefits as well," said Mr Little.

FT IT Outsourcing

More than 1,000 business leaders took part in a recent survey

When asked to select three out of 11 statements which gave the best description of their organisation's view of outsourcing, 50 per cent said: "We outsource when others can do it better", 35 per cent said: "We outsource to focus on our core business", and 32 per cent said: "We outsource to reduce our cost base."

The bias to outsourcing for tactical reasons is that common to all the countries surveyed.

One consequence of outsourcing for tactical reasons is that there is a trend away from handing IT over to a single supplier, towards using multiple suppliers with expertise in particular technologies. "There is a recognition that the supplier which is best at supporting PCs is not the best at managing wide area networks or corporate servers."

This shift has raised a different problem: how to get suppliers to co-operate to deliver a seamless service. While it was claimed that suppliers oversold their ability to contract or partner with other suppliers, many interviewees had to admit ruefully that they had not done their homework on establishing whether the mechanisms to do this were actually in place. "Two bottom lines inevitably means problems' was a common comment," said Mr Little.

To overcome such difficulties, the smart companies are setting up overarching agreements which stipulate how the various suppliers must work together. "If the suppliers don't agree, they can't join the party".

This in turn is leading to significant increases in two more sophisticated kinds of business relationship. The first is a consortium of suppliers working together to fulfil a contract, the other is the joint venture between the supplier the client.

The survey found a common view across countries and industry sectors that to obtain the full benefits of outsourcing there should be a shift from outsourcing on a country-by-country basis to global outsourcing.

"This appears to be based on the expectation that supplier capacity will grow in line with demand," said Mr Little.

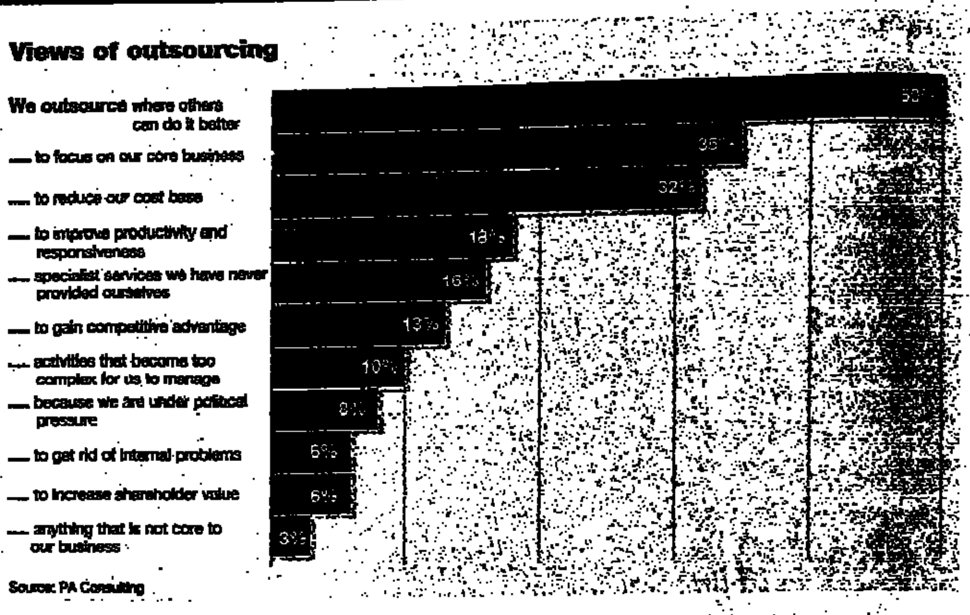
But, he points out, at the moment there are very few suppliers capable of designing and delivering service solutions on a consistent international basis.

Even among these, many have grown through acquisition, which is not a good guarantor of consistency of approach.

"The market for global outsourcing is currently too immature to deliver the levels of benefit which it should be possible to achieve through taking an organisation-wide view."

*International Strategic Sourcing Survey 1996. PA Consulting Group, 123 Buckingham Palace Road, London SW1W 9SR. 0171 730 9000

Views of outsourcing



Source: PA Consulting

■ Digital photography – By Geoffrey Wheelwright

Prices are dropping

The picture files can be transferred from the camera to a desktop computer for use in desktop publishing and image-editing

Digital photography is suddenly becoming much more affordable. A few years ago, you would have had to pay as much as $20,000 for the honour of using a digital camera, but prices for the most recently-released digital cameras are dropping rapidly – with a wide range of choice for less than $1,000.

These new hand-held digital devices offer an easy way to get pictures into your computer without requiring the use of a scanner, an outside agent or any extra equipment (other than what you get when you buy the camera).

Traditionally, you would have to either obtain pre-scanned photographic images on a CD-Rom (by paying someone else to have their film processed onto a Compact Disc using Kodak's PhotoCD system) or buy an image scanner to "photocopy" images into the computer for editing and placement.

Both processes have been time-consuming, expensive and frustrating – particularly for users who only need to add simple "work-a-day" photographs to their insurance adjustment forms, real estate sheets, product catalogues and design mock-ups.

Enter the digital camera. These new devices allow users to shoot images directly and store them on files within the camera. The files can be transferred to a desktop computer for use in desktop publishing and image-editing applications.

One recent entrant to this growing market is Japanese electronics giant Casio – which has launched two digital cameras in the past six months. The cheapest of these is the QV-10, a hand-held digital still camera that allows images to be viewed as they are shot, thanks to a high-resolution active matrix 1.8-inch LCD colour screen.

The images can be subsequently transferred to a personal computer using connection kits which will work with both Microsoft Windows and Apple Macintosh operating systems. Images can also be output to a video source such as a TV or VCR, using a video cable. Connection kits and cables come with the QV-10.

The camera was launched at a price of $995 and made available at many computer outlets and office super stores in the US, enabling Casio to enter the consumer, small office-home office (Soho), vertical, and personal computer markets with something a little different.

"There are a whole world of opportunities for the Casio QV-10 LCD digital camera," says Donnie Coffelt, Casio's US vice-president of marketing, "and we look forward to bringing colour digital imaging technology to a whole new segment of the market. The QV-10's built-in colour LCD high-resolution screen, connection ports for PCs-video devices, and large image memory area are all in keeping with Casio's philosophy of bringing affordable high-technology products to consumers." Casio says it also intends to market the QV-10 to vertical markets such as insurance and real-estate, in addition to the large PC and consumer markets.

Meanwhile, Apple Computer is still in the digital photography business following the launch late last year of the QuickTake 150 – a hand-held camera that looks like a cross between a pair of binoculars and a small spaceship. It weighs slightly less than 1lb and provides the ability to store up to 32 "standard resolution" pictures or 16 of "high resolution".

Once again, these image files can be transferred to either Apple Macintosh or IBM-compatible computers running Microsoft Windows, then placed in publishing or image-editing packages. The camera also uses standard rechargable AA batteries, so users can buy and use ordinary AA batteries if they have not got time to recharge between uses.

The camera holds its images in computer memory while the battery is changed so that users do not lose any pictures they have already taken.

Some photojournalists and newspapers have already started using digital cameras in the field. Like newspaper reporters, the photojournalists are now able to send their work as computer files via "modems" over telephone lines.

The Casio QV-10 hand-held digital still camera allows images to be viewed as they are shot

■ People and skills: IT contract staffing – By John Kavanagh

Reputation had to change

Unlike the 1980s, the mid-1990s are seeing determined efforts to establish standards and bring order to the market

The recession and subsequent recovery are proving to be among the best things that could have happened in IT contract staffing, not only for the surviving agencies and contractors but also for IT managers desperate to fill skills gaps.

The 1980s and then the recession saw companies shifting emphasis increasingly from permanent to contract staff but at the same time brought in small agencies keen to make a fast buck. This tarnished the already less-than-perfect image of the business.

The early 1990s brought a market shake-out and growing demands from customers for higher standards as they saw that their future would lie more and more with contract staff.

These developments are now leading to important change, with leading agencies, their staff and individual contractors seeking not only to set professional standards but also to work with customers on new ideas in areas such as training, forward planning and mutual commitment.

Such developments are important in the light of trends towards contracting. Research by recruitment group Delphi shows that almost two-thirds of IT departments use contractors. A fifth of the rest expect to turn to contractors in the next two years, while almost 60 per cent of existing users will use them more.

These findings are reflected in the take-off of contractors' pay in the past 18 months. Recruitment firms CSS Trident and Software Personnel say rates rose by just over 5 per cent in the 12 months to June 1995, including a 3 per cent increase between January and June. The pace increased further in the second half, taking the average increase to 11.6 per cent for the whole of last year.

However, unlike the 1980s, the mid-1990s are seeing determined efforts to establish standards and bring order to the market.

Julia Robertson: 'Agencies are ensuring that their staff are better trained'

The Institute of Employment Consultants, representing individuals working in job agencies, has been promoting itself hard in the IT market. The institute has a code of practice and courses and examinations leading to its own qualifications. It has run a big promotion campaign in the past 18 months, with initiatives on age discrimination and the employment of disabled people. Membership has increased by a fifth to 3,500 and training income has grown eight-fold.

It has just launched an advertising campaign which tells employers and job hunters to favour agencies with staff who are institute members. The campaign is part of an attempt to improve standards.

Mrs Julia Robertson, the chief executive, says changes last year to the legislation governing job agencies have focused attention on professional conduct. "Agencies are now ensuring that their staff are better trained and more aware of their legal and professional obligations to candidates and employers," she says.

"Our new campaign will not only help people find quality service but will also have impact on recruitment staff who are not yet members."

Her views are supported by recent block membership applications from some agencies, including the UK's biggest recruitment group, Reed Personnel Services, which says it is underlining its commitment to quality by paying the membership subscriptions for its 800 consultants.

Agencies, too, are working on the industry's image, some with their own standards schemes. CSS Trident has launched its own Certified Software Specialist scheme, with a code of conduct. Software Personnel has drawn up separate client and contractor charters covering its own behaviour towards them.

At the same time, a handful of agencies have achieved the ISO 9000 quality management standard in the past two years and a couple have gained the Investors In People award.

The main activity at agency level is in the Computing Division of the Federation of Recruitment and Employment Services, which has established a code of conduct that companies must agree to before they can join. About 100 IT agencies have signed, out of an estimated 800-1,000 in the market.

The federation is getting valuable endorsement from the Independent Computer Contractors Specialist Group of the IT industry's main professional body, the British Computer Society. This is partly for practical reasons: the federation's code says agencies must not send a CV to employers without the applicant's permission. This prevents an employer getting the same CV from different agencies, an issue which has long upset contractors because managers who receive two identical CVs usually throw both away.

The Independent Computer Contractors group's support includes encouraging its 350 members to use job agencies which belong to the federation.

In addition the group, which is also writing its own code of practice, has launched a CV faxing service for its members, which again focuses on recruitment agencies in the federation. Contractors can send their CVs to the specialist group's administrator with a list of agencies to contact, and the document is passed on by fax.

Mr Mike Cullen, the group's chairman, says the service ensures that reputable agencies are supported and saves contractors the time of checking which agencies are members of the federation. Contractors can ruin their chances of winning a job if they unwittingly send their CV to a non-member, he says.

The federation's most ambitious project, now under discussion, involves reaching agreement with employers on their skills needs and arranging training for contractors.

Employers would have to give contractors the chance to gain experience in their new skill, and contractors would have to commit to working mainly through certain agencies.

One proposal is that federation members could share training costs in exchange for guarantees that the contractors would only work through these agencies. The training would be based on employers' needs, so in return these employers would have to be prepared to give contractors the chance to use their new skills.

Contractors might have to agree to give priority to the agencies that were supporting them in their training.

The plans are still in their early days but all these developments of the past two or three years reflect the industry's acknowledgement that its reputation from the 1980s has had to change.

London symposium on the future of desktop computing

A European audience of directors and senior personnel from the IT-user community will hear an impressive line-up of speakers taking part in Interforum 96 in London on Friday, June 7 when the theme will be "The future of the desktop – business strategies for the network-centric computing era".

Sir Peter Bonfield, chief executive of British Telecom and chairman of ICL, will deliver the opening keynote address. The closing address at the televised event at the Queen Elizabeth II Conference Centre, Westminster, will be given by Mr Larry Ellison, chief executive and president of Oracle, the software company.

Interforum 96 marks the launch of an annual IT symposium by UniForum UK, in association with the Financial Times. UniForum is a non-profit organisation with more than 1,200 members spanning the vendor, user and central government communities.

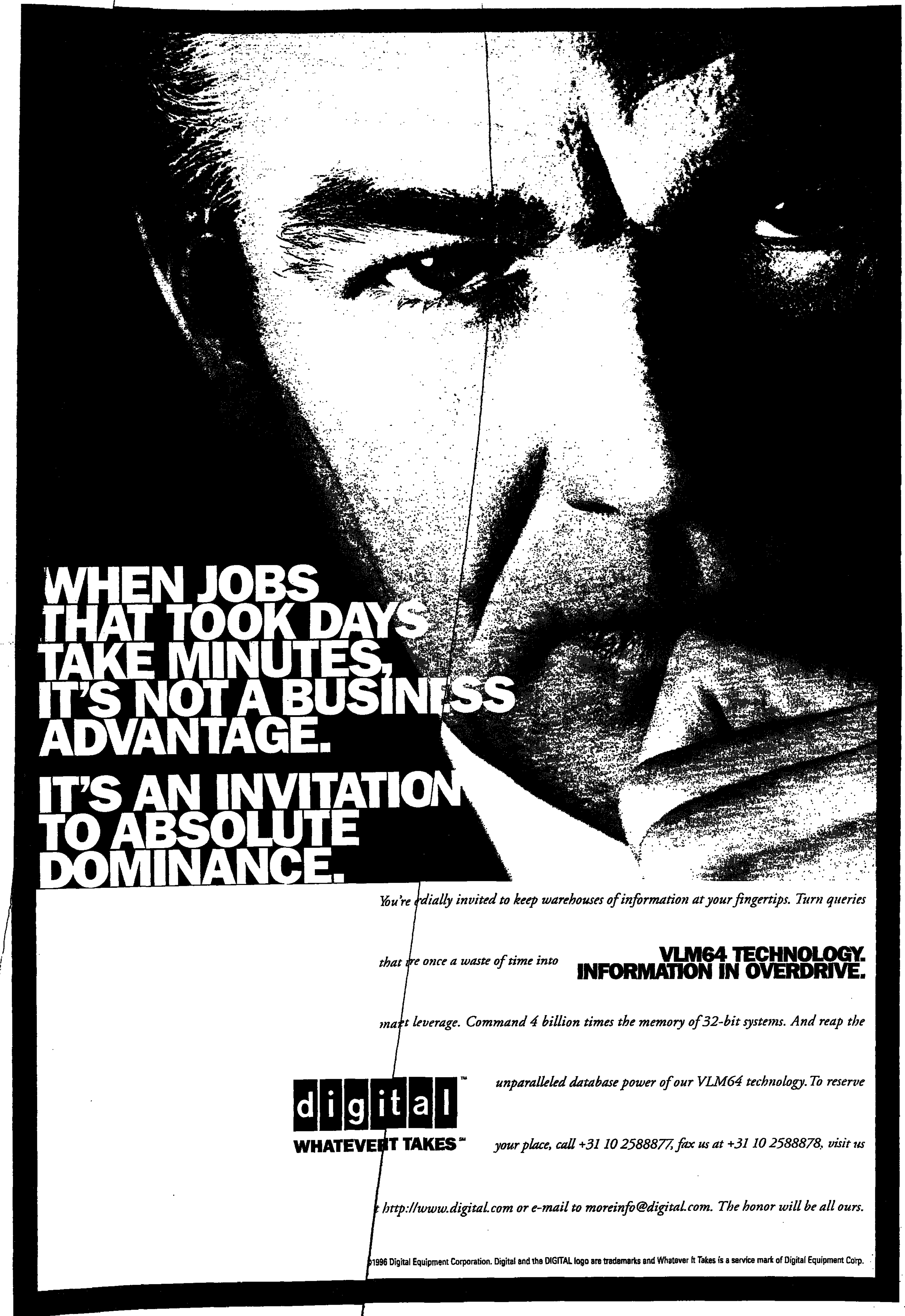
The one-day event will also address an international audience via the FT Television service which is available to TV stations worldwide.

Other speakers will include: Mr Irving Wladawsky-Berger, head of IBM's Internet Division, Mr Philip White, chief executive and president of Informix Software, Mr Keith Todd, chief executive of ICL, Mr Javaid Aziz, European vice-president of Silicon Graphics, Mr Gene Banman, general manager of Desktop Systems Group, Sun Microsystems, and Mr Peter Martin, editor of the international edition of the FT. Speakers' views will also be available on the Internet via the FT Web site.

□ For more details of the event, contact Mr Philip Flaxton, executive director, UniForum UK, 9-11 EBC House, Richmond Station Buildings, Kew Road, Richmond, Surrey TW9 2NA, tel (+44) 181 332 0446, faxback (+44) 181 332 0448.

□ The FT-IT Review in June will also examine business strategies for the network-centric computing era.

هدية من الاهرام


WHEN JOBS THAT TOOK DAYS TAKE MINUTES, IT'S NOT A BUSINESS ADVANTAGE.
IT'S AN INVITATION TO ABSOLUTE DOMINANCE.
You're cordially invited to keep warehouses of information at your fingertips. Turn queries that were once a waste of time into smart leverage. Command 4 billion times the memory of 32-bit systems. And reap the unparalleled database power of our VLM64 technology. To reserve your place, call +31 10 2588877, fax us at +31 10 2588878, visit us at http://www.digital.com or e-mail to moreinfo@digital.com. The honor will be all ours.
VLM64 TECHNOLOGY. INFORMATION IN OVERDRIVE.
digital™
WHATEVER IT TAKES℠
©1996 Digital Equipment Corporation. Digital and the DIGITAL logo are trademarks and Whatever It Takes is a service mark of Digital Equipment Corp.

■ Overview – By Paul Taylor

Learning to live together

Some analysts are predicting that CTI and other sophisticated call management techniques will be among the main drivers of computer sales by 1999

FT IT Directions

Computer Telephony Integration (CTI) promises to transform business communications

The digital worlds of telephony and computing are on a collision course which promises to transform business communications and redefine the relationship between traditional telecommunication equipment vendors, computer and networking groups and software specialists.

Computer Telephony Integration (CTI), although still in its infancy, is a rapidly expanding market which is already generating innovative business applications and helping companies to improve customer responsiveness, productivity and efficiency.

"CTI is really the marriage of computing and telephony, and companies from both sides are offering products," says Mr Philip Armstrong of Northern Business Information, a division of Datapro. He estimates that the market for CTI was worth \$2bn last year and will grow to between \$10bn and \$12bn by the end of the decade.

As telecommunications converges with computer systems, the distinctions between the traditional PBX and dedicated communications servers in a client-server network are evaporating. Coupled with a move away from proprietary systems and towards open standards, this has ignited the interest of both applications developers and potential users in CTI.

By the end of the decade some analysts are predicting that CTI – particularly desktop CTI – and other sophisticated call management techniques such as Interactive Voice Response, will be among the main drivers of computer sales.

Traditionally, CTI has mainly been identified with call centres and mostly confined to large companies such as financial institutions, utilities, retail and travel organisations which have needed to handle a high volume of incoming calls.

According to BT, there are 25,000 call centres in the US with 500,000 operators. In the UK, there are just 17,000 CTI users and these are almost exclusively call centre operators, however this is expected to explode by the year 2000. By this time, BT predicts that call centres will represent only about 12 per cent of the UK market in CTI as more and more use of CTI is made for office automation and personal productivity.

"CTI is the next logical step for call centres," says Mr Chris Ellis, marketing manager for GPT Communications Systems in the UK, who estimates that up to 60 per cent of CTI sales today relate to call centres.

Most call centre users graduated from Automatic Call Distribution (ACD) telephone systems which have been around for about 30 years and which route calls to an appropriate operator or "agent". CTI systems go one step further by using information gathered about a caller, such as their Calling Line Identification-derived telephone number or an account number entered using a touch tone telephone, to link to a customer database.

Information about the caller can then be sent to an agent's computer screen – sometimes before the caller is even connected – using a technique called "screen popping".

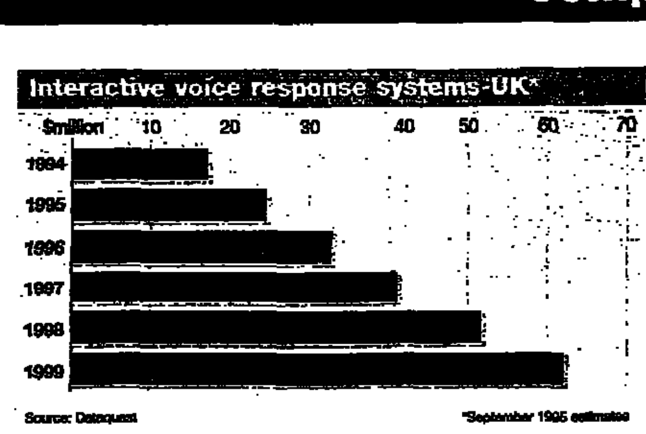
Employing CTI in call centres can improve customer service while cutting costs and improving productivity. "CTI which enables 'screen popping' is already becoming a key differentiate to ensure customer loyalty in today's highly competitive market place, where the whole concept of telebusiness is being reviewed across all industry sectors," says Mr Gordon Loader, UK marketing manger for Aspect Telecommunications, a leading ACD vendor.

CTI can also be used to help manage outgoing cals and optimise a telesales operation using a technique caled predictive dialling which automatically calls customers or prospective customers using a database and statistical algorithms to reduce the risk that there will be no free agents available to deal with a successfully connected cal.

"At the heart of any predictive dialling solution is its pacing algorithm," says Mr Robert Schwartz, director of European sales for EIS International. "This algorithm monitors and controls many variable in the call centre, such as the connect rate, average call lenth and customer wait time."

These systems can differentiate between no answer, engaged signals, answering machines and a human voice – and connect real peope to a free agent within a second of establishing the connection while also transmittin relevant customer details o the telesales agent's screen.

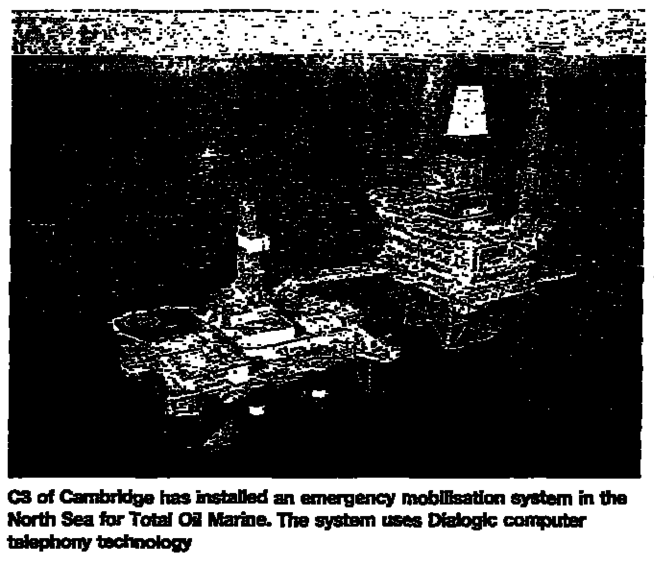
Other CTI applictions include audiotext servicesuch as weather or traffic forcasts and fax-back services here callers can use a touchtone telephone to request information which is then sent bak to them via a computer-geneated facsimile.



Another fast-growing group of CTI products, sometimes called intelligent office systems, are aimed at departmental or work group applications where they help support teleworking, "hot-desking" or simply ensure that customers dialling a single number reach the right employee no matter where they are.

These segments of the market have been dominated by the big telecommunications and computer equipment vendors and independent specialists. However, the potential of CTI to transform the workplace has recently attracted the attentions of others including software groups such as Microsoft and Novell. Microsoft in particular sees desktop CTI as a personal productivity tool to be integrated into both home and office.

Microsoft is encouraging developers to write CTI applications using the Telephony Applications Programming Interface (Tapi) specification developed with Intel, which is built into its Windows 95 operating system. Meanwhile, IBM has launched Microsoft Phone, a desktop CTI product designed to work with products such as the Creative Labs plug-in Phone Blaster telephone management system.



C3 of Cambridge has installed an emergency mobilisation system in the North Sea for Total Oil Marine. The system uses Dialogic computer telephony technology

By using APIs, independent application developers such as London-based Virtual Office Company argue that "the power of the PABX, previously hidden away in the basement, can now be delivered to the desktop through the PC which is known and understood to the users. This way, the investment which organisations have made in telephony can finally deliver very significant productivity and customer service improvements."

Most analysts believe the increasing power and flexibility of computing products will mean that they will continue to eat into the traditional business of the telecommunications equipment vendors. Some, like Mitel, have already begun to respond.

Although there are no PC-based PBXs on the market today, Mitel has recently announced the development of its MediaPath open processing platform and collaborations with several computer vendors including Digital Equipment.

Meanwhile, the entry of Microsoft with Tapi and Novell with a rival specification called Tsapi (telephony services application interface) into the CTI market has added to the existing confusion over standards and interoperability.

Mr Keith Clarke, a consultant with CMG, the computer services group, notes: "There are lots of factions in the market with different agendas and that results in lots of flux in defacto standards."

In an effort to address these issues, some of the largest suppliers in the business have joined forces to create the Enterprise Computer Telephony Forum (ECTF). Others, including IBM, Apple, ATT and Siemens, have formed a consortium called Versit which has already issued specifications for the Personal Data Interchange and vPort, a high-speed wired connection for computers, mobile devices and telephones as a CTI "encyclopedia" specification.

Together, Versit and ECTF want to keep CTI "open" so that customers can mix hardware and software platforms on a desktop, on server and mainframe systems. Their idea is to work together to allow the development of multi-vendor CTI applications, based on the various international standards.

Such initiatives could have a considerable impact on CTI as the market begins to mature. As Mr Johann Edward, European product manager for Data General call centre products, notes: With its productivity, efficient and customer service benefits CTI is certain to have a dramatic impact on the way business interface with their customers.

"The convenience and user-preference for the telephone will, however, ensure its survival as an essential communication tool for the foreseeable future. In order to maximise effectiveness of customer services while providing a sufficiently personal service, the telephone and CTI must then learn to live together."

APPLICATIONS Rod Newing looks at innovations by Novell and Lotus

Global networks are new business model

"The telephone companies have access to every business and consumer in the world and have billing arrangements in place with them. By working with telephone companies we can offer more services and charge for them using their central billing." This is Novell's vision of the future, as outlined by Mr Lalit Nathwani, their senior brand marketing manager.

IT companies, such as Lotus and Novell, are busy building global networks in partnership with telephone companies. This represents a new business model for the industry and is consistent with the current vision of network computing as the future of the industry. Users access the Novell and Lotus networks through their local telephone company.

There will no longer be a need for the wide area network or even a local area network. Documents, databases, applications and Java applets can be stored on public servers provided by the telephone company, such as those provided by BT in partnership with Hewlett Packard. In the case of Novel, the telephone company can bill the user for all charges incurred while connected to the system. This will cover the normal communications charges for connection, as well as charges for using the value-added service which the network itself provides, such as a global directory, secure transactions, immediate response and continuous availability.

The bill can also include charges for use of software and applications on the network servers. These may be either public servers or any private server attached to the network by an organisation, including the 3m NetWare servers already in existence. This could include the use of applications, Java applets or other objects, and information, services and goods purchased over the system.

"This provides a secure managed alternative to the Internet, with a global directory to help users find the information, services and applets they need," says Mr Nathwani. The infrastructure which underlies the Novell network is provided by NetWare and GroupWise, so Novell expects to receive a percentage of the billings made by the telephone companies. The exact amount is a commercial secret, but is probably 1 or 2 per cent.

"Because of UK legislation, BT will provide separate billing for communications charges and Notes system usage," says Mr James Hogbin, product manager, BT Network for Lotus Notes. "We provide flexible billing systems, but it is up to the client to select the method. There is no current revenue sharing with Lotus, but when electronic commerce starts happening there will need to be a review, but it is a year down the line. When we do, we would expect a partnership, just as we have with Hewlett-Packard."

Ms Margaret Cekada, marketing director for AT&T's Novell service, says: "This new model provides a wide area network for novices and defines the business data call of the future." If users are prepared to pay a little more for a secure, robust, managed alternative to the Internet, they will pay the telephone company and will never know how much goes to the IT company.

If they get this right, users will gain – and it could be a licence for Novell and Lotus to print money!

An artist's impression of RAF Tornados firing AirHawk missiles. Hughes (UK) chose BT Network for Lotus Notes to link its Team AirHawk business partners throughout the UK in their bid for a £650m defence contract

□ *Following our report in the April issue of the FTIT Review on virus protection, Lotus Development would like to point out that the Green Stipe virus was not circulated with Lotus software. Lotus has stingent precautions in the manufacture of its software package.*

CASE STUDY Voice messaging

Police test neighbourhood links

Voice messaging often seems to the general public to be the unacceptable face of information technology.

Where in the old days you could talk to a receptionist or secretary and get a straight answer, now a computer stands in your way.

But it does not have to be so. Properly applied, voice mail can ease communications. British police forces are adopting it to help them work more efficiently with the public to beat crime.

Staffordshire Police, for example, has recently installed a system from the US company Octel to communicate with neighbourhood watch schemes. The system is being tested with watch co-ordinators in the Leek and Tamworth areas.

It will call the co-ordinators automatically at the time of day when they have said they should be available and will keep calling until contact is made.

When the phone is answered, the system will introduce itself and ask for a PIN number (personal identification number) to be input before it gives the latest local information.

Superintendent Lovell says: "This is a fully automated system, which is something quite new for the police. It should not only save a lot of time in contacting people but also ensure that the same message is delivered to everyone.

"In the past, messages have been passed from one person to another and have been embellished in the process."

If the experiment is successful, he hopes to extend the system to cover early warnings of trouble, such as shoplifting gangs or football hooligans, and to improve the call-out for key individuals to attend important incidents.

Staffordshire Police first installed its voice messaging system on trial in 1992 with 150 mailboxes. When this proved very popular, an enlarged system was installed in 1994 connecting 23 police stations.

The move to bring in the neighbourhood watch schemes began in March.

Other police forces are watching the Staffordshire experiment closely and some have already embarked on the same route.

Northumbria police have also begun contacting neighbourhood watches via a voice messaging system. Superintendent Dennis Mitford, who was in charge of setting it up, says: "Calling all the contact people once a week is a huge task and anyway the information is out of date by that time."

So last year Northumbria Police upgraded its Octel internal voice mail system to handle communications with neighbourhood watches. A pilot scheme showed very positive results, in delivering information to contacts more quickly and in saving time for officers, according to Supt Mitford.

"It has been a success so far, but it is still early days," he says. "The system copes very well with 50 people, but I am not sure that it will be able to cope with expansion to 1,500 or 2,000."

He would like to be able to encompass hotel watch and farm watch schemes if the technology proves resilient.

Voice messaging may have other advantages for the police. Answerphones have been found to be inflexible because they cannot give out complex information, cannot cope with receiving long messages and cannot forward messages.

With voice messaging, many calls for information from the public can be answered automatically. Officers in remote stations can check their voice mail boxes for briefings instead of having to call a duty sergeant or travel to headquarters.

The media can call to listen to the latest news. Members of the public can leave "tips".

George Black

■ **The background** – By Geoffrey Wheelwright

An idea revisited

With 'Microsoft Phone' software, the PC is being extended into the world of voice-based telephone communications

The idea of marrying computer and telephone technology to produce a hybrid computer-phone is not new.

It was tried as early as the mid-1980s with the development of the now-forgotten "One Per Desk" from British Telecom-ICL – a system also known as the BT Tonto – and the American TeleCompaq, one of the few failures born out of US computer giant, Compaq.

But Microsoft, the personal computer software market leader, has decided to revisit the idea with new software that recognises the fact that computer manufacturers are once again building telephony functions in their computer systems.

Computer-makers Apple, Compaq and Packard-Bell have all produced systems in the past two years that include features such as fax send-and-receive capabilities, telephone answering machine and speakerphone capabilities.

"Microsoft Phone" software aims to bring some standardisation to the integration of telephony functions in computers. Microsoft points out that leading hardware manufacturers are now producing voice modems and complete PC systems that provide innovative computer-telephony applications based on the new product.

The company says Microsoft Phone is a software-only speakerphone and answering machine made possible by new communications technologies available only in the Microsoft Windows 95 operating system, and by new, voice-enabled modems.

Manufacturers offering Microsoft Phone products and systems include Creative Labs, Diamond Multimedia Systems, Micron Electronics and Miro Computer Products.

"Computers are already essential in fax and data-modem communications. Now, with Microsoft Phone, Microsoft is extending the PC into the world of voice-based telephone communications," says Mr Brad Chase, general manager of Microsoft's personal systems division.

"The rich communications technologies in Windows 95 combined with the product offerings of our hardware and OEM partners result in a powerful and integrated computer-telephony experience for end-users."

Microsoft Phone apparently allows users to create centralised message centres that turn PCs into speakerphones; store all electronic-mail, voice and fax messages in a single "in-box"; let callers hear announcements, leave messages or receive faxes by pressing their phone keys; and use text-to-speech technology to read electronic-mail messages aloud over the phone.

> Manufacturers suggest it will give them access to new markets

In addition, Microsoft Phone uses speech-recognition technology that enables users to store frequently-used numbers in memory and to dial merely by saying a name.

The company also says that the software will let users set up password-protected voice mailboxes for remote collection of messages. In addition, Microsoft says you can tell the computer to notify you automatically when new messages arrive via pager, mobile telephone (or any other telephone number where you might be contactable). Newer telephone services such as caller-identification and call-forwarding can also be accessed from the software.

Hardware manufacturers seem enthusiastic and suggest that it will give them access to new markets.

"Our new multimedia systems incorporating Microsoft Phone give individuals and small businesses the ability to manage their telephone and messaging needs in a way that's only been available to large corporations until now," says Mr Kenneth Birch, vice-president of strategic relations at Micron.

"The new communications technologies available together for the first time in Windows 95 were crucial to making this happen."

National Express sales via telesales and booking staff have grown by 55 per cent

CASE STUDY National Express coaches

Smart system helps sales

It is becoming more and more unlikely that you will initially hear a live, human, voice when you call the service department of any big corporation. Increasingly, call management systems are being used to take the load off human operators and more accurately direct calls to where they are supposed to go.

Aiding this trend is the parallel development of computer telephony integration (CTI) systems, which harness computing power to assist with call management and automatic call distribution.

A good example of how all these trends come together can be found at the information technology department of the National Express coach group.

National Express recently started re-engineering its integrated booking service with technology using Microsoft Windows-based personal computers from Olivetti UK and is now claiming cost savings of about £13,000 a month while increasing the volume of calls it takes.

According to Mr Chris Brown, director of information technology for the National Express coaches telesales centre, the new system (dubbed Smart) has helped sales via its telesales and booking staff grow by 55 per cent.

He also says the average cost of each sale has fallen – as staff have been able to do a better job of "cross-selling" additional services while taking sales calls. The company says that prior to the installation of the new system, the sales staff payroll was equal to 22 per cent of revenue from sales. That figure has now apparently dropped to 17 per cent in the first four months of using the system.

"We have managed to increase both the number of calls we take – which now average between 7,000 and 10,000 per day, as well as increasing the number we are able to convert into confirmed sales," Mr Brown says.

● Meanwhile, there is an effort under way by a group of US companies (Apple, IBM and AT&T's Lucent) working with German computer and electronics giant Siemens, to bring about greater standardisation to the whole computer telephony area. These companies have banded together to launch an initiative called Versit, which is designed to get system designers and manufacturers to create systems that conform to certain standards.

At the recent CeBIT annual computer and telecommunications show in Hannover, Germany, the group unveiled the Versit CTI Encyclopedia – which is supposed to eliminate technological barriers to CTI so that applications are "scalable" from the desktop across an entire business and can work with a wide variety of hardware and software.

Mr Larry Jacobs, managing director of Versit, says: "Although the CTI market is exploding, the industry has failed to provide developers with a truly open, powerful and all-encompassing framework for delivery of cross-platform CTI applications," he says.

"The Versit CTI framework represents a tremendous step forward in helping the industry move towards seamless computer telephony integration."

Geoffrey Wheelwright

■ **Voice and video on the Internet** – By Louise Kehoe in San Francisco

It's good to talk for nothing

Voice communication over the Internet is not going to put the telephone companies out of business overnight, however

"Los Angeles to Tokyo is now a local call," the World Wide Web promotion for Internet Phone declares. The software, one of more than a dozen software programs that has been introduced in recent months, enables Internet users to speak to one another, using the global computer network like a telephone system.

The prospect of free long-distance telephone calls – excluding the cost of Internet access – has lured tens of thousands of personal computer users to explore this latest advance in Internet technology. However, voice communication over the Internet is not going to put the telephone companies out of business overnight.

Making a voice call over the Internet is a lot more tricky than picking up the phone, and the results are not always as satisfactory.

The biggest problem with using Internet phone software is that both parties must be "logged on" to the Internet to connect the call. This seriously limits the use of the software for PC users who have "dial up" access to the Internet, because calls can only be placed at pre-arranged times.

Another drawback is that there are, as yet, few standards in this emerging field. Different programs use various signal compression schemes and connection protocols. Thus, both parties to a call must be using the same software, or programs that employ the same compression and connection methods, in order to communicate.

Another difficulty arises for users with "dial-up" access to the Internet, including most home computer users. In order to link two computers via the Internet, it is necessary to know the address of each computer. Unlike an e-mail address, which identifies a user, the address of a computer on the Internet – known as an IP address – is not always the same. In particular, many Internet access services assign new IP addresses to users each time they dial into the service.

Internet phone calls are therefore connected via a third computer, or server, that acts like a telephone exchange. The server matches the names, rather than the computer addresses, of registered users.

Assuming, however, that you have made a connection between your PC in Los Angeles and your friend's PC in Tokyo, what will you hear?

Voice signals sent via the Internet are converted into packets of digital data. In theory, digitised sound should exceed the fidelity of analogue sound signals. For example, most people agree that a CD provides sound quality superior to that of a vinyl record. In practice, however, the sound quality of Internet phone calls varies significantly.

To match the sound quality of a standard phone call, about 8 kbytes of data must be transmitted per second. Most PCs, however, are equipped with modems that transmit and receive data at much slower speeds. In practice, a 28.8k modem is needed to achieve reasonable sound quality.

To compensate for slow modem speeds, Internet phone software incorporates data compression algorithms, called codecs. However, different codecs work best at various signal speeds and it is important to choose software that is designed to suit the speed of your modem.

BT's PC Videophone: making a voice-only call over the Internet is a lot more tricky – let alone a video call

Signal delays are almost inevitable in conversations conducted over the Internet. This is because the signal may pass through dozens of other computers before it reaches its destination. The effect is to insert a short delay between the time you speak and the time the listener hears what you say. However, the annoying "echo" effect – all too familiar to those who make frequent international phone calls – does not occur on Internet calls.

To conduct a two-way conversation with simultaneous speech, a "full duplex" sound card is needed. Currently, most sound cards are "half duplex". This produces a choppy effect in which only one person can speak at a time, an effect reminiscent of CB radio communications.

For all of the limitations, however, Internet phone software is rapidly improving and for many PC users it is a great benefit, enabling frequent conversations with distant family members, friends or business colleagues, without incurring high telephone costs.

Among the dozen or more Internet phone programs now available, WebTalk from Quarterdeck Software is receiving positive reviews. The program provides good sound quality and a wide variety of audio settings as well as directory assistance. It costs \$50. (http://www.qdeck.com). WebPhone, from NetSpeak, a Florida software developer, is one of the newest pieces of Internet phone software. Launched in March, WebPhone, and a companion product called Business WebPhone System aimed at business users, provide full duplex communication and have an attractive cellphone-style user interface. A free trial version of WebPhone can be downloaded from the company's Web page (http://www.netspeak.com). The retail version costs \$50.

Cu-SeeMe, a program developed at Cornell University adds another dimension to Internet telephony with audio and videoconferencing over the Internet. The program is already used by more than 500,000 Internet users.

An enhanced version of Cu-SeeMe was recently launched as a commercial product by White Pine Software of Nashua, New Hampshire, (http://www.cu-seeme.com). Real time video and audio conferencing can be achieved with a 28.8k modem, while audio conferencing is available on a 14.4k modem.

Computer-to-computer phone calls via the Internet are just the beginning. Experiments are under way to enable computer users to make calls via the Internet to regular telephones.

An Internet Telephony Project at the Massachusetts Institute of Technology, also plans to explore the development of phone-to-phone connections through the Internet.

PROFILE Multimedia Services Affiliate Forum

Business class for the Internet

Computer companies such as Lotus, IBM and Novell are building global networks by forming alliances with global and regional telephone companies. Although there is a need to ensure that these services work together, there is a much more critical need to ensure that each telephone company implements the same computer technology in the same manner, to ensure that a truly global network is created and that regional incompatibilities do not creep in.

Customers want to be able to integrate data, image, text, video and voice from their computers and communicate with other users of the same or similar networks.

"The ability for customers to choose the best services to meet their needs and to be sure of interoperability with services selected by others is very important for sustaining the market growth for these services," says Mr Peter Eisenegger who is vice-chairman of the Multimedia Services Affiliate Forum.

The forum was launched in February 1996 to address these issues. It is a group of leading international telecommunications service, technology and content providers, who have joined forces to develop these interconnected global networks.

Used for business communications, these networks provide security, navigation, reliability and customer care, combined with the global reach and ease of use of public telephone networks.

They will also link to the Internet to exploit its global ubiquity and new business development potential. The founding members of the forum are AT&T, Bellcore, Bell Global Solutions, BT, Cisco, CompuServe, DaCom, Deutsche Telekom, Electronic Trade Center (Finland), Folio (content publishers), GTE, IBM Global Network, ITK Telekomminikation, KDD (Japan), Korea Telecom, Lexis-Nexis (content publishers), Lotus, Microsoft, Novell, NTT Corp, Siemens Nixdorf, Singapore Telecom, Telecom Italia, Telecom Malaysia, Telstra and Unisource. France Telecom has committed itself to join later in 1996 and Netscape is expected to join and an active recruitment campaign is under way.

In response to customer demand, the forum's work will concentrate on Lotus Development Corporation's Notes Public Network, Microsoft's client, network, server and tool technologies, Novell's NetWare Connect Service and NetWare Directory Service and Cisco Systems inter-networking software. Multi-point desktop videoconferencing and collaboration tools are expected to follow shortly. Initial deployment will be in the first half of 1996 with pilots running in the second half of 1996.

A Customer Council has been formed to give users a chance to communicate their needs. The forum believes that the services it promotes will provide a "business class" area of the Internet, providing better quality services at a higher price.

Further details of the forum are available at http://www.msaf.org.

Rod Newing

■ Into the future – By Rod Newing

Towards speech processing

Computer software is beginning to understand sounds, words and grammar. This allows it to process text, so that we can dictate and translate between languages

In a few years we will be able to speak into a microphone and see our words appear in a foreign language on a computer screen as we speak them.

This is the expected outcome from two separate initiatives in similar growing markets, which are voice recognition and language translation.

Voice recognition technology can be used to recognise spoken commands in order to control a computer by voice, allowing users to keep their hands free.

However, voice recognition is at its best when used specifically for dictating text direct into the computer.

Voice dictation systems have been available for about three years. They are intended for professional people who do not have the keyboard skills they need to touch-type. However, the early applications have been in vertical markets such as the medical profession, where specific vocabularies have been created to allow staff to work with their hands free.

In general commercial offices, a number of pilots have been undertaken successfully. Large-scale roll-outs are just beginning to happen, with 40 or 50 users, and larger-scale deployment will follow.

"We are beginning to get bids for 1,000-user systems," says Ms Anne-Marie Derault, worldwide head of language solutions for IBM. "It has been spreading by word of mouth from happy users, but interest has now spread to board level." She estimates the total market at $100m with a growth rate of 25 per cent per year.

Dictation systems still depend on users speaking each word separately and clearly in a monologue. The software uses a model of the user's voice pattern, together with spelling and grammar checkers, to recognise words and sentences in context. Users have to train the software to understand their voices by correcting errors through the system, which constantly updates the voice model.

What users really want is continuous dictation, but most of us are unable to speak without running our words into each other. "This merges sounds and creates ambiguity which multiplies the complexity," explains Ms Derault. "More computing power is needed to solve these problems, so it is still about three years away."

IBM is the largest participant in the voice dictation market, but it is under pressure from Dragon. The IBM Voice Type Dictation system requires text to be recorded in a separate dictation window before being transferred to the appropriate application.

Microlise Engineering's MRnet-Talker – a belt-worn voice recognition and speech synthesis unit coupled with radio terminal technology – can be used with hands-free bar-code scanning for order picking in warehouse and industrial applications. The voice templates of up to 100 individuals can be stored on a single terminal

Dragon makes great play with the fact that its system allows the user to dictate direct into whichever application they are using – although IBM resellers AllVoice have amended Voice Type to record direct into an application. Competing systems are also available from Kurzweil and Philips.

Most of these systems work well with notebook computers, as well as desktop machines. Philips have just announced their SpeechPad, a hand-held dictation unit with voice recognition built in, for downloading direct to a PC.

Software is playing an increasing role in the translation of text from one language to another, known as "machine translation."

"The technology is not perfect, but it gives an indication of the content of a document and therefore allows the user to decide whether it should be professionally translated," explains Mr Jim Lewis, president of Globalink, the world's leading supplier of translation services.

"For instance, a foreign e-mail can be sent to be translated automatically. If it seems important when it is returned, the original can be sent to a professional translator."

Translation software, like voice recognition, looks at whole sentences, using algorithms to establish the meaning of words from their context, so that they are translated intelligently, not literally.

"Translation by computer is difficult because human language is often complex and ambiguous," says Mr Martin Turner, managing director of CompuServe UK, which provides such a service to its members. "Many words and phrases can have different meanings, depending on their context.

"Vocabulary evolves continuously, with new words being added, and others disappearing from common usage, and long and complex sentences are difficult for computers to analyse. As a result, the quality of translations produced by computers is much lower than human translations.

"However, machine translation can produce an understandable rough draft translation in a very short time."

With the arrival of the Internet, a large quantity of foreign language material is publicly available which needs to be translated. Mr Lewis points out that even people who speak English as a foreign language during the course of a day, prefer to read documents in their own language.

Machine translation is available over the Internet from several sources. Readers can assess its effectiveness free of charge by accessing http://www.globalink.com. The result will be e-mailed back within 24 hours without human intervention.

One problem with writing translation software is that of finding software developers to write it. "There are only about two dozen people in the world who are both good programmers and good linguists," Mr Lewis says.

Globalink is developing a new technology, code-named "Barcelona," to support its software products. Barcelona is a meta language which seeks to divorce sounds from words, allowing programmers and linguists to work separately.

"Software is good for casual correspondence or getting the gist of a document, but it was not designed as an outbound tool, except in the hands of a professional translator," Mr Lewis concludes. Nevertheless, he has a vision that one day a translation option will be installed on nearly every PC worldwide, and be used as commonly as spellcheckers are today.

When the voice and translation technologies converge, people without a common language will be able to communicate by speaking into a computer. This will be a wonderful use of technology.

FT IT

Software at work

Trends in voice recognition

It is just a pity that the industry has been unable or unwilling to develop a keyboard for professional users, instead of making us struggle with one developed for a typewriter.

Fortunately, this article was prepared with assistance from IBM's Voice Type Dictation System. It has not, however, been machine translated through a dozen languages and back into English, even though it may read that way!

■ SIPC – By Geoffrey Wheelwright

Riposte to Network Computer

The technologies of SIPC will make the PC platform the centre of entertainment, communications *and productivity* in home and office, says Bill Gates

It has only been three months since Mr Larry Ellison, president of Oracle, first sent a shockwave through the computer industry by showing off a prototype of a $500 Internet access device – called the "Network Computer" – that he claimed could supplant the personal computer in popularity.

The merits of Mr Ellison's idea are currently being debated by pundits all over the industry – and in early April, industry leaders (including Compaq and Intel) made what could be termed an official response to it as they rallied around an initiative from software giant Microsoft.

Known as Simply Interactive PC (or SIPC) – and backed by leading companies such as Compaq Computer, dominant chip maker Intel and Toshiba – this effort appears custom-designed to meet and then beat the standards that Mr Ellison set for his network computer.

Microsoft chairman and co-founder Bill Gates unveiled this "framework of hardware technologies" for use with Microsoft Windows operating system-based personal computers as a full-scale riposte to all the talk of $500 Internet appliances. According to Mr Gates, the technologies of SIPC will make the PC platform the centre of entertainment, communications and productivity in both home and office, providing the ease of use and convenience of a consumer appliance.

Mr Gates described and demonstrated key technologies and prototypes for SIPC to more than 3,000 PC hardware engineers and executives in San Jose, California at the Windows Hardware Engineering Conference 96 (WinHEC 96).

The demonstrations included enhanced audio, processed and driven from the PC through a consumer stereo system; high-performance 3-D graphics; connectivity between the PC and consumer electronics devices; playback of "digitally perfect" audio and video; and "sealed-case concept PCs" that never need to be opened for users to connect and add new devices.

Leading hardware companies – including Compaq Computer, Hewlett Packard, Intel and Toshiba America Information Systems – were quick to endorse the SIPC framework and its associated technologies. Mr Gates invited the PC hardware industry to join Microsoft and begin making SIPC a reality immediately.

"While the PC is easier to use today, we should not be satisfied," Mr Gates said. "SIPC technologies will make the PC as easy and convenient to use as other home appliances. PCs will not only be more interactive and fun, they'll also be easier to connect to consumer devices such as VCRs, stereos and TVs. As the PC becomes a central device for entertainment and communications, it will be placed with these consumer devices in the family room."

The SIPC design includes something known as the OnNow design initiative for system-wide power management and instant accessibility. This will apparently mean that, unlike today's PCs, which can take minutes to boot up each time they're turned on, SIPC systems will be instantly available at the touch of the ON button.

"You're not going to go to your PC to look up a new fact or find out about movies if you're sitting there watching that memory test program run. I don't think there's anything quite as antiquated as that memory test that comes up or those kind of ugly BIOS (basic input/output system) messages that we all see. Those have just got to go away," said Mr Gates.

"Those are an artifact of sort of our nerdy past, you might say, and definitely there's no problem hiding those things. The basic idea of On Now is that you don't have to turn the machine on. But in order to make that work you have to have most components in the machine turned off, and just a little bit of logic there monitoring for events that might come in.

"Those events include the user coming and using the mouse or the keyboard; but they can also include a phone call coming in, where you want to immediately detect what kind of call is it and have the right type of software be activated."

Mr Gates says that this is a great example where the hardware world and software world have to work together. "We have to be able to detect when we can shut down various system elements, and we have to be able to cycle those back on, and cycle them back on very quickly. We don't want any delay when you sit down and want to start using the machine."

"And so the On Now work is actually an initiative called ACPI – Advanced Configuration Power Interface – that we have a lot of key partners, including Intel and Toshiba, who are helping us drive that forward."

Mr Gates suggests that a consumer with no experience using a personal computer will be able to sit down at an SIPC system and immediately complete tasks such as playing a game, watching a or television programme, browsing the World Wide Web, connecting to a stereo or VCR, listening to voice mail or writing e-mail.

He further claims that extending or connecting SIPC systems to other devices will be as easy as plugging in an extension cord. SIPC technologies include support for new ways to connect to consumer electronics devices and PC peripherals.

He also says that while today's PC users may dread opening the PC case, SIPC systems will not need to be opened. It will be possible for connections to be made while the SIPC system is turned on, with no need to restart the computer.

Finally, Mr Gates pledged that SIPC systems will provide fast access to the Internet and will support critical-mass high-speed data pipelines, such as ISDN and cable modems, to the home. He says SIPC systems will support state-of-the-art Web browsing, with enhancements to Microsoft's Internet Explorer World Wide Web Browser, and provide full support for e-mail, voice messaging, conferencing and faxing.

CASE STUDY IBM's Voice Type Dictation system

Talking with the Woolwich

The Woolwich Building Society has found that as long as you pay attention to training and support, voice recognition can bring productivity benefits to busy professional staff.

"Our group resources director saw a demonstration of IBM's Voice Type Dictation system," recalls Mr Alex Brown, a management consultant with the Woolwich in London.

"He thought it was worth investigating because we have a number of people who produce large quantities of text, but who do not have strong keyboard skills. There was also an obvious saving for business professionals who dictate to their secretaries."

The Woolwich carried out an evaluation of the product which suggested that IBM had a clear lead in this product sector. It bought six copies for an initial evaluation for use in the Legal, Group Audit and Facilities Management departments.

"We struggled initially because we failed to grasp the training need which the product requires," admits Mr Brown, "so we arranged for IBM to give users some more training. We are used to being very effective with modern software in a matter of hours, but the dictation system is fundamentally different in that it is a product which learns about you in a way other software does not. Depending on your training and how you treat it, you will get better or worse."

The trial lasted about four months and the benefits in saving secretarial time through transcription were clearly defined. Mr Brown also identified other benefits in productivity.

The Woolwich then invited staff to see the system demonstrated and they were offered the opportunity to use the system for a fixed fee, chargeable to their budget. This fee covered hardware, software, training and support. They wanted 20 users, but 30 applied.

These users had the system installed, enrolled to teach the software their voice model and were given initial training. This was followed by further training after two weeks. The users were issued with standard voice macros, which gave them a series of short cuts, such as transferring text into the e-mail system, inserting standard paragraphs and spelling out frequently-used names in full.

Some users ran into busy periods and fell behind in their use of the system. "You must plan the introduction into a period when users have the time to devote to it, if you are to achieve the 97 per cent accuracy which is possible," advises Mr Brown. "The system won't be effective if it is only used occasionally."

Woolwich staff found that they needed to pay attention to hand-holding, as well as training, and especially to making sure that errors are corrected properly, so the software can learn to understand the user's speech pattern. Users had no difficulty with speaking isolated words.

"We found that the system is not appropriate for all staff," says Mr Brown. "There is a degree of individual preference and some people did not like it. This was partly the way they dictate and partly their relationship with their secretaries. The latter were initially suspicious, but they reacted very sensibly when they realised that the system can't do all the other jobs which they undertake."

Business professionals who are used to dictating found it was particularly helpful to see on screen what they had said, rather than having to repeatedly replay a tape. Most of the current users find the system gives them more productivity, a faster response and increased confidentiality.

"I hope that the dictation system will become a product which people can order if they see the need, just like any other software or hardware peripheral," says Mr Brown.

"It is important to understand that you introduce the system to individuals, not departments. As the technology develops, I am sure voice recognition will revolutionise the way in which we use computers both at work and in all other areas of our lives."

Alex Brown: 'There was an obvious saving for business professionals'

Contact: IBM Voice Type Dictation 44 (0)1705 492249 or gbibljba@ibmmail.com.

This item was dictated using an IBM Voice Type dictation system; the same system used by the Woolwich.

Rod Newing

CASE STUDY Voice recognition in supermarkets

Focus on shrinkage

The Produce Marketing Association of America prints a handy publication that lists the price codes of some 250 vegetable items. It may not matter to a shopper that artichokes are coded 4516 if small, 4084 if large, but supermarket staff at the till need to use these codes to obtain the right price.

Because many of the till operators work part-time or are only employed for a few weeks, there is no question of them memorising every code. Stores issue books of the codes, but consulting these wastes time and creates queues, so check-out staff often guess some of the prices, entering an amount low enough not to antagonise customers and costing the store money. These sums are known as shrinkage, and it is estimated that in a large group an amount equal to the annual profit from one site is lost every year.

NCR, the US information technology group, has been addressing this issue in collaboration with Kansas-based Balls Foodstores. At its Atlanta Human Interface Technology Centre research lab, known as Hitc, NCR has turned to speech recognition to eliminate price code drain on the bottom line.

The Advanced Produce Interactive Cashier Offline Training System is a grand title for Hitc's joint product with Balls Foodstores. Under the more fetching acronym of Apricots, this is a computer-based training system that teaches check-out staff the different varieties of produce.

With 1,000 kinds of apple available in the US, Apricots is valuable training. Subjects sit in front of a multimedia PC and attempt to identify the type of product from high-quality still pictures and video images. An earpiece acts as the voice recognition system's speaker, and trainees deliver their answers to a microphone on a short boom that extends from the earpiece around to the mouth. This is quite distinct from a microphone headset.

Hitc also addresses such issues as human reactions to the technology. NCR scientist Michael Miller says that young male check-out staff, many of them students, are particularly adverse to headsets. "The boys don't want to wear a headset. They associate them with jobs like air traffic controller and they think it makes them look like a nerd."

As well as soothing juvenile egos this system is effective in educating staff and cutting down on queues.

Words do not have to be enunciated robotically, with clear English the only voice recognition requirement.

The next step, one that Balls Foodstores has yet to commit itself to, is Hitc's Advanced Produce Point of Sale, or Apropos. This dispenses with the wired link between microphone and PC.

Mr Miller thinks that infra-red communication, similar to a TV remote control, is the most likely path for Apropos. Staff can speak conversationally, recording the items in terms such as "a five pound bag of large onions" and the point of sale (PoS) system will automatically translate their words into a price code. A synthetic voice repeats their words via the earpiece, thus allowing any error to be identified.

> A colleague took two minutes to check the items through the sample PoS

Mr Miller says improved speech recognition algorithms and contemporary PC power are his means of delivering accurate voice recognition. Today, a PoS system is basically a low-end PC with a cash till.

Such is the extent of shrinkage caused by faulty produce codes that supermarket groups have indicated to Hitc they will pay $1,000-$1,500 extra for every PoS in order to introduce Apropos.

"We can deliver it well within those constraints," says Mr Miller. He relates a personal experience that convinced him voice recognition has a future at the check-out. Last year he had sent his collection of plastic fruit ahead to an IT industry event in Houston only to find a supermarket chain pitching up in Atlanta demanding an impromptu Apropos demonstration.

Michael Miller: 'The boys don't want to wear a headset'

Mr Miller stopped at his local supermarket and filled a trolley with 30 kinds of vegetable. "My cashier had only been working for 10 weeks. He identified 18 items and knew 15 produce codes."

The cashier consulted produce guides and other staff – which meant that Mr Miller spent a total of 14 minutes paying for the goods, while an increasingly irritated queue gathered behind him. Back at Hitc, an NCR colleague took two minutes to check the items through their sample PoS using Apropos.

Apropos is not a production system as yet, but the very fact that supermarket chains are unable to calculate the precise wastage caused by the produce code system could guarantee a very rapid roll-out across US suburbs.

And countless staff starting their working lives in supermarkets will not have to endure the ritual of memorising artichoke codes.

Michael Dempsey

APPLICATION Xerox tackles translation

R&D begins to bear fruit

Language translation has long been seen as a challenge to information technologists. Accurate, readable translation is hard enough for an expert and automation of the process has proved to be a particularly hard problem to solve.

Linguistics researchers at Xerox's research laboratories in Europe and the US have been working on the problem for some years and the first fruits of their research are starting to emerge as practical and usable products.

Translation Aid Network Services (Tans) builds on earlier Xerox research to provide a general-purpose translation "server" in a client-server computing environment.

Accessible from a standard Windows PC or through the Internet, it could be an important step towards widely-available language translation services.

Xerox's approach is to concentrate on practical mechanisms for getting at the information held in text – regardless of the language.

The Multi Lingual Theory and Technology (MLTT) group at Xerox's Grenoble laboratory is researching the structure of natural language and the way it is used.

The group is building a language model with a flexible rule base to cope with the complexity of language evolution.

Its model of language accepts that words and their usage change according to their context.

The model is the starting point for a range of practical projects. The Tans project is one of the most recent and follows on from Locolex, an earlier project from Xerox which created a translation aid for a desktop computer.

Locolex uses an advanced technique originating at the Xerox Palo Alto Research Center (Parc) in California.

The technique is called Finite State Calculus, and Xerox says it speeds up text analysis and translation.

In addition to analysing individual words, Locolex examines their context.

More accurate – and logical – translation is, therefore, possible.

Tans takes the translation process away from the desktop; the Tans software runs in a dedicated server computer attached to a network.

Translation becomes another service on the network – such as printing or file storage.

The Xerox team at Grenoble has built two workstation front-end packages to give "client" access to the Tans features.

One uses the Windows PC environment and a specially-enhanced version of Microsoft Word word processor. The translation feature is an extra function on the MS-Word menu.

The user can select a word in a document and request a translation.

Tans can also work from a standard World Wide Web (WWW) browser such as Hot Java or Netscape which could be running on a PC or a Sun Microsystems workstation.

Sun users can also work through a special interface to access a "professional" service on Tans which gives detailed grammatical analysis of sentences.

The first Tans systems were installed at the Grenoble laboratory in September 1995 and the preliminary version includes a French to English dictionary with 40,000 entries, 1,000 idioms and 5,000 "multi-word" expressions.

Researchers are working on extending the system to include other languages.

Several Xerox companies have expressed interest in using Tans to help in the translation of maintenance manuals.

The system has also been proposed for similar use by a large international vehicle manufacturer.

In the long term, the aim is build on Tans to provide a general-purpose translation service which can be made widely available to any computer user faced with multiple languages in their workplace.

Language translation will always be difficult and will always need some human intervention.

The Xerox Tans project, however, points the way forward and promises solutions to many current problems.

Philip Manchester

The MLTT group at Xerox's Grenoble laboratory is researching the structure of language and the way it is used

CASE STUDY Voice-operated dictation

Software catches up

When Mr Michael Pettman, a managing partner of commercial law firm Pettman Smith, first tried to find a system which allowed him to dictate correspondence into a computer terminal, he was told he was at least three years ahead of any commercially viable voice-operated software.

Just a year later, in 1991, Pettman and Mr Chris William, his IT supplier, client and friend, of Advanced System Architecture, were so impressed with VoiceWriter, from US company DragonDictate, that they agreed to distribute it in the UK.

"Our secretaries were typing a legal document, having it amended, re-typing it, having it amended, and so on," Mr Pettman explains. "VoiceWriter allowed one of our eight partners or 12 fee-earners to change the text as he or she dictated it. We didn't have to wait for something we'd spoken into a machine but never actually saw, to be typed and returned to us for approval.

"VoiceWriter did – and does – save us a tremendous amount of alteration time, since we can see what we write instantly; it gives us total and immediate control over our own work."

The system also frees secretaries to take on other, more important tasks. "This not only gives them greater job satisfaction, but utilises their talents in a more productive way," says Mr Pettman. Last year, VoiceWriter was sold to Canadian company Kolvox Communications. Mr Pettman is now distributing Kolvox's product, based on the Kurzweil Computer Products voice operating system.

The Kolvox system is very similar to VoiceWriter, and looks more or less the same on screen. Both have dictionaries of more than 200,000 words, but 50,000 of these are active at any one time in Kolvox's system, compared to 30,000 in VoiceWriter.

Mr Pettman believes that speech recognition is slightly more reliable in the Kolvox product, too, although corrections are easy to make in either. When the user says "oops", the system goes back to the incorrect word and supplies a menu of similar sounding words to choose from. If the correct word is not listed, the user types it in.

Each system enables the user to add as many special words – that is industry specific terms – as they wish, and to incorporate phrases as single words by running words together to create one sound.

For example, Mr Pettman can say: "inconnectionwith" as one word; the system will print: "in connection with".

In addition, Mr Pettman can create a voice macro by saying one thing to obtain something totally different. This enables standard paragraphs to be stored, which are recalled by just a word or phrase.

If, for example, Mr Pettman wants to include the memorandum and articles of association paragraph, he just says: "Mems and arts". If he says "YS", the system provides two carriage returns, prints "yours sincerely", provides three carriage returns, and prints "M Pettman".

VoiceWriter enabled Pettman Smith to reduce secretarial support from one for every fee-earner to one for every two fee-earners.

At its peak use, about 10 people had VoiceWriter on their desks.

Due to a large turnover of staff and the change from VoiceWriter to Kolvox, however, only three or four are using VoiceWriter at present; Mr Pettman himself has Kolvox on his machine.

But once Pettman Smith has finished installing the Windows operating system throughout the practice, new staff will be trained to speak to Kolvox, instead of a dictaphone. "We still have to speak very slowly into the machine," Mr Pettman admits, "as it cannot recognise normal speed speech patterns.

"But the advantages of the system are tremendous. The editorial control it gives us improves efficiency, and document turnround time has speeded up tremendously. It will even print envelopes when we tell it to."

But no one yet has invented a machine to seal it, stamp it, and put it in the post.

Marcia MacLeod

FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY

1-2 Accounting & Business Solutions
3 Activity & Contact Management
4-5 Application Software

1-2 SANDERSON

Tel: 0114 282 7777
Fax: 0114 282 1340
E-Mail: SeanH@Sanderson-cbt.co.uk

For Premier Computer Solutions

Sanderson is the UK's premier open systems supplier of computer solutions and related technology and networking services with 15 offices in the United Kingdom and operations in Australia, USA, New Zealand and East Asia. Sanderson has developed and owns an extensive portfolio of software packages for a wide range of industries and applications including:

Geographical Coverage International

Manufacturing	Schools & Colleges	Solicitors
Processing Industry	Fleet Management	Production Monitoring
Direct Marketing & Mail Order	Airports	Insurance
Finance and Distribution	Financial Management	Police & Security
Printing Industry	Healthcare	Document Image Processing
Media Industry	Multimedia & CBT Training	
Credit Management & Collections	Logistics and Distribution	
Local Government	Hotels	

SANDERSON COMPUTERS

3 KAI Computer Services Ltd

8 Kings Exchange, Tileyard Road, London N7 9AH
Tel: 0171 609 3746 **Fax:** 0171 609 3742

OCTOPUS ACTIVITY AND CONTACT MANAGEMENT

Improve office productivity and communication, monitor activities and progress.

OCTOPUS gives you the WHO? WHAT? WHEN? WHY? HOW? And WHERE? from your PC

- How do I know what others have done?
- What is the return from the marketing activities?
- How much time are we spending on each item of work?
- Why are different departments duplicating the same tasks?
- Have all procedures been correctly followed through?

Simple to use, it integrates with your existing wordprocessing, accounts and spreadsheets packages to deliver fast solutions for the entire organisation.

4 J D Edwards (UK) Ltd

Oxford Road, Stokenchurch, High Wycombe Buckinghamshire HP14 3AD
Tel: 01494 682700 **Fax:** 01494 682699

J D Edwards & Company is the industry leader in supplying application software and solutions for the IBM AS/400 market. Developed using CASE tools, J D Edwards is currently developing a new generation of software products, which will operate on a variety of platforms.

J D Edwards' fully integrated solution is for cross-industry and industry specific applications including general business, financial, manufacturing, distribution/logistics and energy and chemicals.

A global solutions provider, J D Edwards has more than 3,800 customers in 91 countries with multi-national functionality including multi-currency and language capabilities.

JDEdwards

5 Interactive Information Services

The Softworld Report & Directory Series has quickly established itself as the essential range of independent guides for the business software buyer.

Designed specifically to meet the needs of software buyers, each directory provides a single source of information about its market and the leading software products. If you are choosing software for your business, a Softworld Report and Directory could save you hundreds of pounds in searching or consultancy time.

For further details call 0181 541 4865.
Interactive Information Services,
12 Princeton Mews, London Rd.,
Kingston upon Thames,
Surrey KT2 6PT.

softworld

6 Backup & Media Management
7 Bar Coding
8 Bespoke Systems
9 Call Centre Solutions
10 Call Centre Technology

6 Essential Computing Limited

Burstead Court, Clevedon
Avon, BS21 7NB. **Tel:** (01275) 343199
Email: sales@essential.co.uk

Take advantage of business on the Internet without risking security. Essential solutions include:-

BLACK HOLE - an application level firewall that protects your network without restricting valid *access into and out of your company for E-mail, Web etc.*

PMDF - a multipurpose E-mail switch, allowing ccMail, Microsoft Mail users etc. to exchange Internet mail - seamlessly and securely.

Hardware: Intel, SUN, Digital

Geographical Coverage: UK and Netherlands

Applications
Essential systems integration and systems management services for Pcs, Macs, Unix, NT & DEC.

ESSENTIAL COMPUTING

7 KTP Applied Bar Code Technology

Waltham House, Riverview Road
Beverley, East Yorkshire, HU17 8DY
Tel: 01482 867321 **Fax:** 01482 882712

Bar coding can make every business more efficient. KTP supplies Bar Code technology including printers, labels, scanners, portable terminals, connectivity tools, software and quality control equipment.

In addition to total solutions KTP is a stocking distributor supplying peripherals to systems integrators operating in complementary vertical markets.

Geographical Coverage:
United Kingdom

KTP APPLIED BAR CODE TECHNOLOGY

8 Perception Systems Int'l Ltd

Pinewood House, 21 Bramble Bank
Frimley Green, Camberley, Surrey
Tel: 01252 836463 **Fax:** 01252 836715
Email: 100733,3247@CompuServe

WYWIWYG - What You Want Is What You Get. Perception Systems design and install computer systems to meet your company's requirements. Single user under MS-DOS, multi-user on Networks (Novell, Windows, WFW, NT), UNIX, AIX, HP-UX and VMS. Multi-lingual, multi-currency and multi-company software to your requirements.

Applications: Stock control, bar coding, electronic tagging, safety inspection systems, parts brokering, freight forwarding, international courier systems, warehousing, perishables, marketing, property management, voice recognition and control - and whatever you want.

Geographical Coverage: Europe with remote support by modem.

Established 1983

Perception Systems Int'l Ltd.
01252 836463

9 Aspect Telecommunications Ltd.

The Harlequin Centre, Southall Lane
Southall, Middx UB2 5NH
Tel: 0181 574 6969 **Fax:** 0181 571 6126
Email: ukmarketing@aspect.com

Leading UK provider of call centre systems based around the Aspect Call Centre, a fully featured, digital, ACD. Aspect offers either directly, or through partnerships with specialist call centre software suppliers, solutions offering eg. inbound/outbound call processing, IVR, CTI and management information.

Geographical Coverage:
UK, Mainland Europe, North America, Australia

Applications:
Finance, hi-tec, utilities, retail, travel, telemarketing

10 Co-Cam Computer Services

Tudor House, Kingsway Business Park
Hampton, Middlesex, TW12 2HD
Tel: 0181 490 7100 **Fax:** 0181 490 7108
Email: sales@co-camuk.demon.co.uk

Specialists in design, development and implementation of call centre technology. A pioneer in CTI and application software, Co-Cam offers bespoke and packaged CTI products linking to all leading switches, and is the UK distributor of BROCK, the renown sales and marketing application used by over 1,500 companies.

Hardware/Compatibility:
Leading ACDs/PBXs; UNIX, MS-NT, MS-Windows.

Geographic Coverage:
Worldwide.

Applications:
CTI & Call Centre Applications.

Cost:
CTI approximately £250 per agent.

CO-CAM

11 CASE Tools Computer Aided Software Engineering
12 Client Server Accounting & Distribution Software
13 Client Server Application
14 Computer Networking
15 Computer Telephony Component

11 Lincoln Software Limited

Marlborough Court, Pickford Street
Macclesfield, Cheshire SK11 6JD
Tel: 01625 616722 **Fax:** 01625 616780
Email: info@ipsys.co.uk
Web: http://www.ipsys.com

Lincoln Software produce a range of Meta-CASE and CASE tools for large scale three-tier client/server application development. Our Object IE product is an object oriented, full life cycle tool *which includes full C++ Code Generation and* Database Generation for Oracle, Sybase and Informix. Our tools bridge the gap between business requirements and IT.

Hardware/Compatibility
Open VMS/Solaris/Sun OS/HPUX/AIX/Microsoft Windows

Geographical Coverage worldwide

Applications
IPSYS Toolbuilder, Object IE, HOOD, SSADM

12 Lawson Software

Capital Place, 120 Bath Road
Hayes, Middlesex UB3 5AN
Tel: 0181 754 8470 **Fax:** 0181 754 7766

Company Description
Lawson Software offers robust, client/server applications with proven business benefits for companies worldwide. Lawson has 20 years of experience in developing business applications, with high-end, corporate functionality. Combining that experience, with a unique underlying development technology strategy, Lawson offers future proof solutions - offering both high-end functionality and openness and integration to the newest technologies.

Hardware
AS/400, RS6000, HP9000, DEC Alpha, Sun, Sequent, U6000

Applications
Accounting, Distribution Management, Materials Management, Lawson Tools and Open Enterprise Desktop.

Coverage
FT 2000

LAWSON

13 JBA

Needles House, Birmingham Road
Studley, Warwickshire B80 7AS
Tel: 01527 496444 Fax: 01527 496230

Product Description: JBA System 21 is a completely integrated information services infrastructure for organisations trading in national and global marketplaces. As well as being client/server based, System 21 is object enabled, meaning it can be used with object oriented operating systems when they become available.

Hardware: Multi-platform

Geographical Coverage: Worldwide

Applications: System 21 Manufacturing, Financial, Customer Service & Logistics with specific software for the Drinks, Apparel, Food, Automotive, Plant, Tool and Equipment hire industries.

Cost: Available on request

14 3Com

3Com UK Ltd, Pacific House, Third Avenue
Globe Park, Marlow SL7 1YL
Tel: 01628 897 000 **Fax:** 01628 897 003

3Com Corporation has helped over 25 million people gain access to critical information through high speed networks. At the heart of the company's vision is global computer networking, linking large businesses, small offices and homes through its industry-leading Asynchronous Transfer Mode (ATM) and switching products. 3Com's customers include Scottish Power, which has just installed the largest ATM network in the UK, Microsoft and educational institutions including Oxford and Dublin Universities.

Geographical Coverage:
Worldwide

Applications:
All sectors

3Com
Networks That Go the Distance

15 Rhetorex

Centennial Court, Easthampstead Road
Bracknell, Berks, RG12 1YQ
Tel: +44(0)1344 301 066 **Fax:** +44(0)1344 301 067

Rhetorex is one of the industry's leading suppliers of PC-based Computer Telephony components. Analogue and digital Voice Processing and Fax cards, supporting numerous operating systems, are available in configurations of up to 32 ports in a single PC-slot. Development tools are available to assist in application development.

Geographical Coverage:
UK and international

Applications:
Voice Mail, Digital Recording, Hot Desking, Fax-on-Demand

16 Computer Systems Integration
17-20 CTI

16 PACIFIC Systems Int. Plc

European Headquarters, Kingfisher House
Frimley Business Park, Frimley, Camberley
Surrey GU16 5SG **Tel:** +44(0)1276806800
Fax: +44(0)127682250

Company Description
PACIFIC is a computer systems integration company specialising in building and implementing bespoke software solutions across a variety of platforms and industries. We have particular skills *in client/server development, workgroup computing,* systems integration, networking, facilities management, automated operations, decision support solutions and data wharehousing.

Hardware
AS/400
PC LANs
UNIX

Coverage
International

PACIFIC

17-20 Genesys Europe Ltd

The Asmec Centre, The Ring, Bracknell RG12 1HB
Tel: 01344 382080 **Fax:** 01344 382081
E-mail: sharon-c@dircon.co.uk **Internet:** http:dns.genesyslab.com/

Genesys Europe Ltd develops innovative award winning Computer Telephony Integration (CTI) middleware that solve diverse business communication needs. Genesys' cost-effective CTI technologies and management tools improve delivery of services, and reduce operating/labour costs, whilst maintaining adherence to standards and open systems architecture. Customers include over 40 major corporations worldwide including MCI, BT, Telia, Visa, Wells Fargo, Hewlett Packard, Sun, Oxford Health.

Genesys Software Products are available in North America, Canada, Europe and the Asia/Pacific regions either direct or through a select group of solution providers including: BT, Nortel, Telia, GSI Tecsi, SCOPUS, Bell Sygma, PC Plus, SEMA, TeleAp, VoiceLink and others.

1995 Computer Telephone Product Suite of the Year:
T-Server - Telephony server that integrates CO switches, PBX's, ACD's and IVR's with other software applications to deliver complete CTI solutions.
Call Router - Software that makes data driven routing decisions for single and multiple networked call centres based upon ANI, DNIS, caller history, agent expertise and realtime inputs such as an IVR.
Call Centre Manager - Software that provides a real time graphical display of inbound, outbound and internal call centre events from Genesys products and other intelligent resources such as application software, IVR's and ACD's to effectively monitor and efficiently manage all agent activity.
Campaign Manager - Software that enables outbound predictive dialling campaigns to be *blended with inbound calls allowing for maximum utilisation of call centre resources in real time.*
Call Concentrator - Software that enables cradle-to-grave reporting of voice and data devices and targeted applications by depositing that information in a supported relational database management system (RDBMS) to make the evaluation of the call centre possible and ultimately improve customer service.
Softphone - Screen-based telephone application that both frees agent's hands from phone *interaction and provides a programming interface for telephone event reporting to existing* customer applications. Softphone supports industry standard protocols and tools such as OLE, OCX, DDE, Corba, RPC and TAPI.
VideoACD - Software that supports the simultaneous delivery of voice, data and video for multimedia enabled call centres and video enabled kiosk applications.
Netvectoring - Unites Internet, advanced call centre capabilities and two-way real time video conferencing.

GENESYS

21-22 CTI AND THE INTERNET

1 DAY SEMINAR - 10 JUNE 1996

Seminar Leader: Rob Walters, Author of the FT/UNICOM Report on CTI
Plus presentations from CMG, Genesys, Network Connection, CallWare Technologies (USA), IBM

For a full brochure and registration details, please call Nina at UNICOM Seminars on **01895 256 484, fax 01895 813 095,** or email Nina@unicom.co.uk or visit our Web site: http://www.worldserver.pipex.com/unicom

Other events in this series include: The Intranet; New Media Publishing; Law of the Internet; Real-world Applications of Intelligent Agent Technology.

UNICOM

21-22 CTI/Internet
23 Construction Industry Software
24-25 CTI and Voicemail

23 IBIS Service Limited

2 Twyford Place, Lincolns Inn, Cressex
High Wycombe, Bucks HP12 3RE
Tel: 01494 448866 **Fax:** 01494 443333
Contact: John Ireland

SITEMAN® is a *Site Based Computer System* for the Construction, Engineering and Contracting industry. In summary, **SITEMAN®** manages daily site costs, collects GRN's, plant returns and labour timesheets, manages valuations and tracks variations. In addition, **SITEMAN®** links through to most Estimating, Purchasing and Accounting *Systems.*

Hardware/Compatibility: All major systems and platforms (UNIX, Windows, etc.)

Geographical Coverage: UK, Mainland Europe, Australasia, South Africa, North America

Applications: SITEMAN®, Site Based *Computer System*

Cost
£200 per month per site

IBSL

24-25 Powerhouse Communications Plc

21 Woodthorpe Road
Ashford, Middx. TW15 2RP

Do you want to join the leading businesses using Computer Telephone Integration to improve the efficiency of your organisationand customer service?

The I'N DEX is the UK's leading integrated platform for voice, data and CTI.

Powerhouse can explain how CTI can work for you.
Call us now 01784 885301

POWERHOUSE COMMUNICATIONS

26 Data & Document Capture
27 Database Searching
28 Distribution Manufacturing & Financial Solutions
29 DM2
30 EDI/Electronic Commerce

26 OPEN 4 Systems Ltd

Arndale House, Otley Rd, Headingley
Leeds LS6 2UU
Tel: 0113 274 9990 **Fax:** 0113 274 9998

Barcoding - specialists in integrating barcode technology with existing systems. Barcoding printing and wand/CCD/laser scanning technology for PC, Unix and VMS systems.

Mobile Data Capture - *Document Tracking, Asset* Tracking, Stock Checking and bespoke portable data collection and mobile computing solutions *using Psion 3a palmtops and Workabout data* collection terminals.

Document Capture - Document Image Processing and Document Management solutions.

Digital Imaging - a range of *Digital Cameras, Scanners,* Image Manipulation and Colour Printing solutions.

27 Search Software America

23 Wood Lane, Sonning Common
Reading RG4 9SJ
Tel: 01734 724472 **Fax:** 01734 724494

SSA-NAME3 provides high performance name search for person or company names or addresses in all sizes of database. Sophisticated algorithms compute name keys & search strategies which compensate for error & variation found in naming words. Intelligent scoring facilities provide human-like record ranking and matching.

Hardware Compatibility: *Platform independent*

Geographical Coverage: Versions for over 25 countries and languages.

Applications: Customer enquiry, new-client checking, fraud detection, *batch deduplication,* merge/purge, data warehousing & data mining.

SSA

28 Minerva Industrial Systems plc

Bovis House, Lansdown Road,
Cheltenham, Glos GL50 2JA
Tel: 01242 242566 **Fax:** 01242 236107

Company Description

minerva
INDUSTRIAL SYSTEMS plc

Hardware
UNIX, Open systems
GUI, OO, RDBMS, 4GL, 200+ platforms

Geographical Coverage
Worldwide multi-lingual

Applications
Integrated solutions for manufacturing industry
MFG/PRO, Progress, Oracle.

29 Integritas Limited

PO Box 34, Sevenoaks
Kent TN13 2LZ
Tel: 01732 740866
Fax: 01732 740475

Integritas provides a comprehensive service as a bureau and system integrator for complete systems, including Document Management, Data Management and Image Capture: scanning, indexing, OCR/ICR, Microfilm/Microfiche digitisation, conversion of 9 Track, 3480/3490 etc. to chosen Media. Full audit trails for document *admissibility as evidence*

Hardware Compatability:
Multi-Platform, WORM, CD-ROM, Optical Disk.

Geographical Coverage:
United Kingdom

Cost:
Solutions from £250 to £1 Million+

30 Premenos UK Ltd

Kingstons House, 15 Coombe Road
Kingston upon Thames, Surrey, KT2 7AB
Tel: 0181 549 5898 **Fax:** 0181 549 3739
Email: stephenb@premenos.com

Premenos is a global leader in the field of electronic data interchange, providing EDI translation software for the AS/400 and UNIX platforms. Premenos are the first software company to provide secure, reliable EDI transactions across the internet. Products include EDI/400™, EDI/e® & Templar™.

Hardware Compatibility: IBM AS/400, IBM RS/6000, HP9000, SUN SPARC (Solaris)

Geographical Coverage: Premenos UK covers the British Isles. Premenos is a global organisation.

Applications: Interfaces:
JBA, JD Edwards,
Marcam, CA

Premenos

31 Electronic Document Management Software
32 E-mail to Fax, Intranet & Internet Solutions
33-34 Enterprise Applications
35 Enterprise-wide Software

31 FilePlus Europe Ltd

Coworth Park House
Ascot, Berks SL5 7SF
Tel: 01344 875050 **Fax:** 01344 873622
email: 100137,2021 @compuserve.com

Product Description
File Plus Professional 2 is State-of-the-art Document Management Software for the Professional Office environment. This Windows platform software indexes either scanned or DDE Linked files, stores images, searches for, retrieves and prints documents in the fastest, most efficient, secure and convenient way possible.

Hardware
Stand alone or Networked PCs running Windows 3.1 or higher, 486 DX2 66Mhz, 8Mb RAM.

Cost
From £1,995 stand alone or from £2,995 for a 5 User Network system excl. VAT

f+

32 Open Connect (UK) Ltd

Litton House, 52-56 Buckingham Street
Aylesbury HP20 2LL
Tel: 01296 330771 **Fax:** 01296 330983

EMAIL TO FAX - Single/Multiple Line solution for sending and receiving faxes. Compatible with MS-Mail, cc:Mail, HP/OpenMail, HP/OpenDesk. Send faxes directly from network clients via email or direct to fax server from desktop applications. Receive faxes directly to network clients or other destinations. Network client delivery requires use of ISDN facilities.
INTRANET - Comprehensive solutions developed, using Speedware Autobahn, for a complete internal internet service.
INTERNET INTEGRATION - Complete service provided from Web Site Design to Hosting-Services. Services include Page Access Monitoring, Mail Handling, Ordering Systems and Electronic Catalogues.
Hardware Compatibility:
HP9000, RS6000, AS/400, HP3000, WEB Servers, DEC/ALPHA
Geographical Coverage: UK

33 Dun & Bradstreet Software

Holmers Farm Way
High Wycombe
Buckinghamshire HP12 4XU
Tel: 01494 424140 **Fax:** 01494 424240

Dun and Bradstreet Software is one of the world's Top Ten software vendors. We provide integrated workflow-enabled business applications for financial, human resource, procurement, information management and manufacturing/distribution activities. The fully distributed architecture allows companies to distribute data, workflow and business processes across the enterprise.

Hardware/Compatibility:
UNIX-HP/IBM/SUN/Digital/DG/IntelNT
Geographic Coverage:
Operations in 41 countries with installations in over 60.
Applications
Across industry and commerce.

Dun & Bradstreet Software

34 SSA

Frimley Business Park
Camberley, Surrey GU16 5SG
Tel: 01276 692111 **Fax:** 01276 692135

Company Description
With over 7,000 client implementations, BPCS *Client/Server represents the world's largest* installed base for a single enterprisewide product line addressing integrated process and discrete manufacturing, supply chain management, and global financial applications.

Hardware
As 400, RS 6000, HP9000, Digital Alpha.

Coverage
Over 40 offices worldwide.

SSA

35 SAP (UK) Limited

No. 7 New Square, Bedfont Lakes
Feltham, Middlesex TW14 8MA
Marketing Hotline: 0181 818 2940
Fax: 0181 818 2990

Company Description

SAP®
Integrated Software. Worldwide.™

Operating Systems
UNIX, Windows NT
Geographical Coverage
Worldwide; 7000 employees
Applications
Industry specific & generic applications covering the industrial, financial and public sectors.

from the top

Information Technolog

Reader survey

FT

FINANCIAL TIMES

Dear Reader

It is important for us to know as much as possible about the readers of FT-IT so that we can continue to improve this product and design others for you as well.

Whether you read FT-IT regularly or only occasionally, we would be grateful if you could help us by completing and returning this questionnaire. The survey results will be used by our editorial, advertising, marketing and electronic media departments. Your reply will be treated in the strictest confidence by Martin Hamblin Research who are a leading independent market research company.

Please return the questionnaire and send it to Martin Hamblin before Monday May 20. The address is on the reverse of the questionnaire. No stamp is required if it is posted in the UK. However, it has not been possible to organise Freepost for outside the UK.

Thank you for your help.

Yours sincerely

Rhys David

RHYS DAVID
SURVEYS EDITOR

SECTION I - ABOUT THE FT AND FT-IT

1. How often do you read the Financial Times: a) on weekdays b) on Saturdays? (11-12)

	Weekdays	Saturdays
Every/nearly every issue	☐	☐1
Quite often	☐	☐2
Only when FT-IT is published	☐	☐3
Only occasionally	☐	☐4
Never normally	☐	☐5

2. And how often do you read FT-IT? (13)

- Every/nearly every issue ☐1
- Quite often ☐2
- Only when I come across it ☐3
- This is the first issue ☐4

3. Were you previously aware of the publishing programme of FT-IT (first Wednesday of every month apart from January and August)? (14)

- Yes, knew precisely ☐1
- Knew it was monthly, but not which day ☐2
- Did not know programme ☐3

4. What do you use FT-IT for? (15)

- To look for new ideas ☐1
- To understand the marketplace ☐2
- To understand the technology ☐3
- To find out what competitors are doing ☐4
- To provide points for discussion ☐5
- To look for new IT applications ☐6
- To look out for new products ☐7
- To find out about IT companies ☐8
- To read about people in IT ☐9
- To find out about problems associated with IT ☐0

(Tick as many as you wish)

5. What do you do with your copy of FT-IT after you have read it? (16)

- Pass it on to colleagues ☐1
- File it for future reference ☐2
- Throw it away ☐3

6a) What sort of people do you feel FT-IT is written for?

6b) Which of these descriptions best fits you? (17-18)

	FT-IT is written for	This description best fits me
Non-IT Management who want to know how computers can help them	☐	☐1
Other executives in companies using IT	☐	☐2
IT Management	☐	☐3
Management & executives within IT companies	☐	☐4
Analysts who track the IT sector	☐	☐5
Students of Computer science	☐	☐6

7. What other sources do you use for information about IT? (19)

- Other national newspapers ☐1
- Specialist magazines ☐2
- TV ☐3
- Radio ☐4
- Colleagues/friends ☐5
- Information from IT company literature ☐6
- Information from IT company representatives ☐7

SECTION II - ABOUT YOU

8. Are you...? Male ☐1 Female ☐2 (20)

9. Are you...? (21)

Under 25	☐1	45 - 54	☐4
25 - 34	☐2	55 - 64	☐5
35 - 44	☐3	65+	☐6

10. Are you...? (22)

- Working full-time ☐1
- Working part-time ☐2
- Studying ☐3
- Retired ☐4
- Running the home ☐5
- Looking for a job ☐6

11. What is your country of residence? .... (23-24)

12. Do you use a PC...? (Tick more than one if relevant) (25)

- At home ☐1
- At work ☐2
- When travelling ☐3
- Don't use a PC ☐4

13. Is your PC...? (26-27)

	At work	At home
A laptop	☐	☐1
Desktop stand alone	☐	☐2
Desktop networked	☐	☐3
Don't use a PC	☐	☐4

14. Do you have a modem? (28-29)

	At work	At home
Yes	☐	☐1
No	☐	☐2

15. Is your modem speed...? (30-31)

	At work	At home
Less than 14,400 baud	☐	☐1
14,400 baud	☐	☐2
28,800 baud	☐	☐3
ISDN	☐	☐4
Don't know	☐	☐5
Don't have a modem	☐	☐6

16. What PC services do you use? (32-33)

	At work	At home
Corporate e-mail	☐	☐1
Internet e-mail	☐	☐2
Internet web access	☐	☐3
On-line services	☐	☐4
None of these	☐	☐5

17. Do you use any of the following? (34-35)

	At work	At home
CompuServe	☐	☐1
America On-Line/Europe On-Line	☐	☐2
Microsoft Network	☐	☐3
FT Profile	☐	☐4
Knight Ridder	☐	☐5

18. If you use the web, how many different sites do you visit during a typical day? (36-37)

	At work	At home
1-2	☐	☐1
3-5	☐	☐2
6-10	☐	☐3
Over 10	☐	☐4
Difficult to say	☐	☐5
Don't use web	☐	☐6

19. Which sites do you visit most frequently? (38-42)

....
....
....
....

20. If you use the web, which Browser do you use? (43)

Netscape	☐1	Explorer	☐4
Netscape 2	☐2	Other	☐5
Mosaic	☐3	Don't use web	☐6

21. What type of information do you look for on the web? (44)

- News ☐1
- Job advertising ☐2
- Information on products/services ☐3
- Other ☐4

22. How often do you access the web at the following times of day? (45-50)

	Usually	Sometimes	Never
Start of the day	☐1	☐2	☐3
During the morning	☐	☐	☐
At lunch-time	☐	☐	☐
During the afternoon	☐	☐	☐
End of the working day	☐	☐	☐
During the evening/night	☐	☐	☐

23. Would you be prepared to purchase goods on-line by credit card? (51)

- Yes ☐1
- Possibly ☐2
- Definitely not ☐3

24. Does your company have a web site? (52)

- Yes ☐1
- No ☐2

25. Does your job responsibility involve taking decisions about the purchase, leasing or use of goods or services? Please tick any items on the list below for which you:
a) initiate work that results in a purchase, b) evaluate shortlists of brands or suppliers, or c) authorise purchases. (PLEASE TICK ALL THAT APPLY FOR EACH ITEM) (53-55)

	(a) Initiate	(b) Evaluate	(c) Authorise	
Networks and Data Communications				1
Personal Computers				2
Software/Software Services				3
Telecommunications products and services				4

Martin Hamblin Research
Mulberry House
36 Smith Square
London
SW1P 3HL

• FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY •

FT-IT DIRECTORY REPLY SERVICE

Should you require further information on any of these advertisers, simply fill in the coupon and return it to: Box FTIT-4 96, Financial Times, One Southwark Bridge, London SE1 9HL

1-2 Sanderson ☐	13 JBA ☐	30 Premenos UK Ltd. ☐	42 First Information Group ☐	54 CtC Ltd ☐
3 KAI Computer Services Ltd ☐	14 3Com ☐	31 FilePlus Europe Ltd. ☐	43 Thomas & Betts Ltd ☐	55 Peritas Ltd. ☐
4 J D Edwards (UK) Ltd ☐	15 Rhetorex ☐	32 Open Connect (UK) Ltd. ☐	44 Fluke (UK) Ltd ☐	56-57 SDX Business Systems Ltd ☐
5 Interactive Information Services ☐	16 PACIFIC Systems Int. Plc ☐	33 Dun & Bradstreet Software ☐	45 CSI (Computing Services for Industry) ☐	58 SAA ☐
6 Essential Computing Ltd ☐	17-20 Genesys Europe Ltd. ☐	34 SSA ☐	46 MAP Micro Ltd ☐	59 Brite Voice Systems ☐
7 KTP Bar Code Technology ☐	21-22 Unicom ☐	35 SAP (UK) Ltd ☐	47 RCMS Computing Services ☐	60 eurovoice limited ☐
8 Perception Systems Int. Ltd ☐	23 IBIS Service Ltd. ☐	36 International Business Systems ☐	48 BAeHAL Software Ltd ☐	61-62 Vocalis ☐
9 Aspect Telecommunications Ltd ☐	24-25 Powerhouse Communications ☐	37 Software 2000 UK ☐	49 Kolvox ☐	63 Voicelink Systems Ltd. ☐
10 Co-Cam Computer Services ☐	26 OPEN 4 Systems Ltd ☐	38 Plantronics Ltd ☐	50 Responsive Systems Ltd. ☐	64 Aptech Ltd. ☐
11 Lincoln Software Ltd ☐	27 Search Software America ☐	39 Netsoft International Ltd ☐	51 Computer Algebra Centre ☐	65 Plexus, A Division of BancTec ☐
12 Lawson Software ☐	28 Minerva Industrial Systems plc ☐	40 EPG Insurance Systems ☐	52 Plasmon Data Ltd. ☐	
	29 Integritas Ltd. ☐	41 Touchbase International Ltd ☐	53 Heroix Corporation Ltd. ☐	

Name ....

Company Name ....

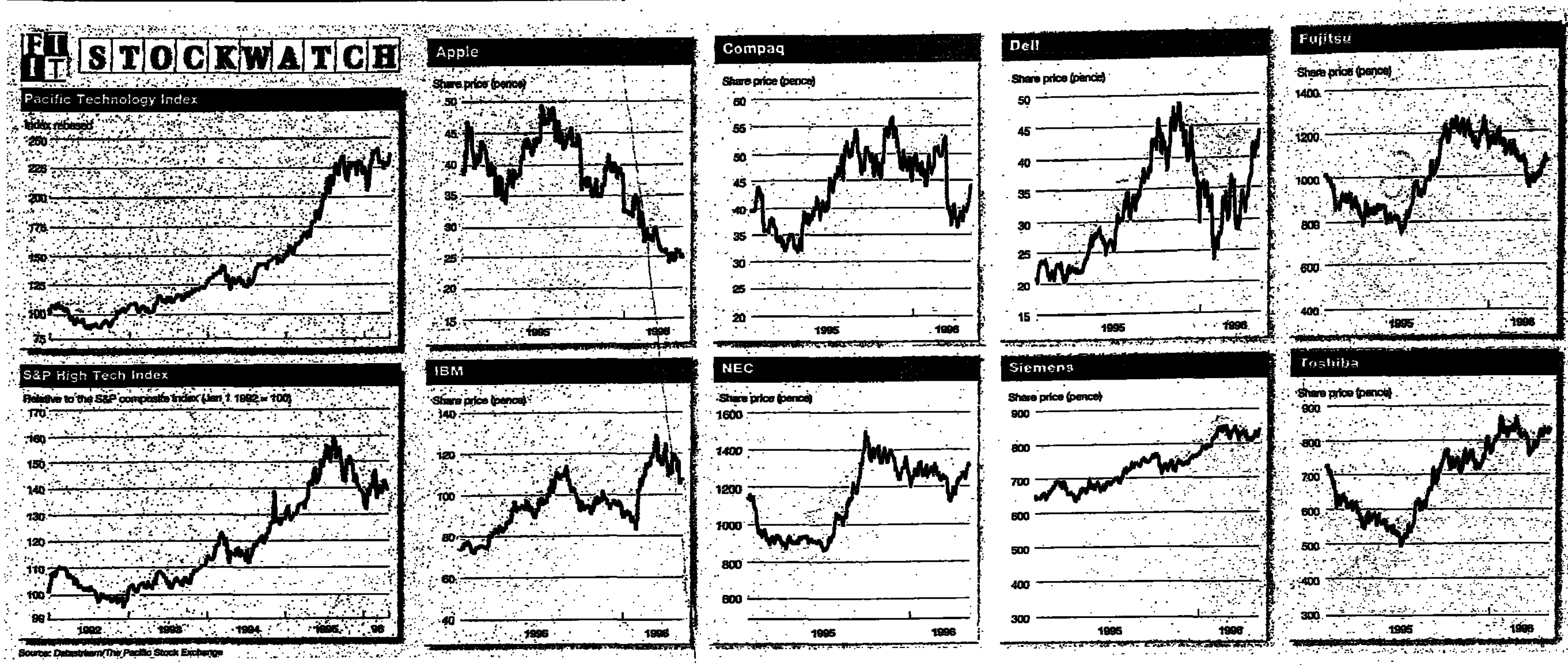
Position in Company ....

Address ....

Telephone ....

Addresses supplied by readers in response to this guide will be retained by the Financial Times, which is registered under Data Protection Act 1984

FT IT STOCKWATCH



Source: Datastream/The Pacific Stock Exchange

■ Stockwatch comment – By Paul Taylor

US results set the pace

'Market dynamics for 1996 appear to be strong worldwide' says Compaq chief Eckhard Pfeiffer

Leading information technology shares continued to rebound last month, buoyed in part by generally better than expected first-quarter results from US-based companies including Microsoft, Intel and Compaq and mostly positive comments on the earnings outlook.

Microsoft's shares rose after it announced earnings that suggested the computer industry was healthier than portrayed during the first three months of the year, while Intel's shares jumped 4¼ to 64⅞ a day after reporting first-quarter earnings that exceeded analysts' forecasts.

Like Microsoft, Intel also was modestly upbeat on the outlook for the current quarter, as was Compaq, one of the leading manufacturers of portable PCs, which reported a 42 per cent increase in first-quarter sales to $4.2bn last week.

Mr Eckhard Pfeiffer, Compaq's president and chief executive, claimed the company had gained market share "as a result of the decisive steps we took to competitively position our desktop and server products." He added: "The market dynamics for 1996 appear to be strong worldwide."

Shares in Compaq have risen sharply over the past six weeks, as have shares in Dell Computer, another leading portable computer manufacturer. Shares in Toshiba, the portable market leader, also continued to rebound.

However, shares in International Business Machines remained under pressure despite reporting stronger-than-expected first-quarter operating earnings and a long-anticipated increase in its quarterly dividend.

Similarly, Apple Computer's shares also remained under pressure as the group's new chief executive continued to grapple with Apple's problems.

In contrast, Olivetti's troublesome personal computer subsidiary has begun to recover from years of heavy losses.

Receive your own copy by post

Subscribe to the FT Review of Information Technology and make sure of receiving your own copy by post of the leading IT review.

All prices include post and packing:

	UK	Europe	Rest of World
Five issues	£8.50	£14	£26
Ten issues	£16	£26	£50

For further details, or to place a credit card order, phone 0345 125244 (UK callers) or +44 171 538 8288 (overseas callers)

You only can also subscribe by cheque or postal order for the above amounts payable to Financial Times Ltd. Please write or send business card with your payment to:

Ms Terri Moule
Subscriptions Department
Financial Times
Number One Southwark Bridge
London SE1 9HL

■ The Financial Times Review of Information Technology is published ten times a year: February - July and September to December, inclusive. Issues appear with copies of the Financial Times on the first Wednesday of each month. Postal subscriptions are delivered as soon as possible after this date.

■ **Asset allocation:** by Philip Coggan

UK funds miss out on US rally

A long-term enthusiasm for the Pacific basin led to a short-term slip-up in the US

There is comfort in crowds. UK pension funds may have been totally wrong about the prospects for the US equity market in 1995, but at least they were all wrong together.

That funds had more assets in the Pacific basin (ex-Japan) in 1995 than in the world's leading economy may seem odd to the casual observer. But it is a logical outcome when an industry uses itself, rather than an outside index, as its benchmark.

If the consensus among pension fund managers is that US equities are overvalued, the median fund will have a small weighting in North America. A fund which matches the weighting of the US in the FT-A World (ex-UK) index would have a portfolio much more skewed to Wall Street than its peers.

In 1995 such a portfolio would have heavily outperformed its rivals. But the chances are the manager would have received few plaudits for such a performance, and would have been criticised heavily had Wall Street declined sharply.

This herd mentality means that the asset allocation of the pension fund industry changes slowly over the years. It may also explain why funds have apparently been slow to respond to the 1995 Pensions Act, which set a minimum funding requirement.

The Act was expected to make funds buy more bonds, as trustees strived to match assets with liabilities. Pension funds are steadily becoming more mature, with a growing obligation to meet the income needs of current beneficiaries by investing in bonds, rather than using equities to provide asset growth to help fulfil future liabilities.

Although pension funds modestly increased their exposure to bonds in 1995, the proportion of funds invested in conventional gilts was the same – 6.1 per cent, according to the WM Company – as in 1990, when UK government bonds were in a bear market.

Funds' low weighting in conventional gilts – in 1986, the holding was 16 per cent – might seem surprising since the last decade has been a relatively good one for bonds. Since the start of 1990, conventional gilts have produced a cumulative return of 104.7 per cent, compared with 95.4 per cent from UK equities. And the 1995 Pensions Act was trailed by the Goode Report, which was published in 1993, so funds were well aware that they might need to make a long term shift towards fixed-interest securities.

However, the provisions of the Act are only being phased in slowly and will not take full effect until the next decade. Funds have no need to rush. Indeed, they received an excess return from UK equities of six percentage points over conventional gilts last year.

There was a shift into the index-linked sector of the gilts market, however. The proportion of portfolios in index-linked rose from 3.7 per cent in 1994 to 4.3 per cent last year, the highest level for a decade.

Mr Gordon Bagot, research and consultancy director at WM, says that this rise was due to a limited number of big, mature pension funds moving heavily into the index-linked field, rather than a general shift by all funds.

On the equity side, funds continue to have a heavy weighting in the UK. It is arguable whether this is justified – UK equities have underperformed overseas shares over the last three and five year periods, although they did better in 1995, and over the ten years since 1986. A strong UK weighting is justifiable from the liability-matching point of view and gives exposure to growth in overseas economies through UK companies' substantial export earnings and overseas operations.

The proportion of pension fund portfolios invested in UK shares has edged down from the peak of 57.6 per cent reached in 1992, but still represents a hefty 53.6 per cent.

Overseas equity holdings have generally edged higher over the past 10 years, although with dips in 1987 and 1990. After peaking at 24 per cent in 1993, they were down to 22.7 per cent in 1995.

There were a number of reasons why managers missed out on the US market, which offered returns of 35 per cent last year. Mr Ian Beauchamp, director and chief economist at Hambros Fund Management says: "In 1995, nobody believed that the US was going to enjoy a soft landing but interest rates fell and the resulting liquidity was invested in financial assets."

Mr David Berry, director of investment strategy at BZW Investment Management says that "people misread the extent to which the US had taken to heart the process of restructuring". Despite the fact that many investors have doubts about the valuations on Wall Street, he feels that funds' holdings of US equities may have reached a secular low.

He adds that missing the US bull run was not quite as disastrous as it might seem. Funds were substantially overweight in continental Europe and the Pacific, and in some areas, for example Switzerland, did as well as in the US last year. Over five years, the Pacific basin has pipped returns from North America by six percentage points per annum.

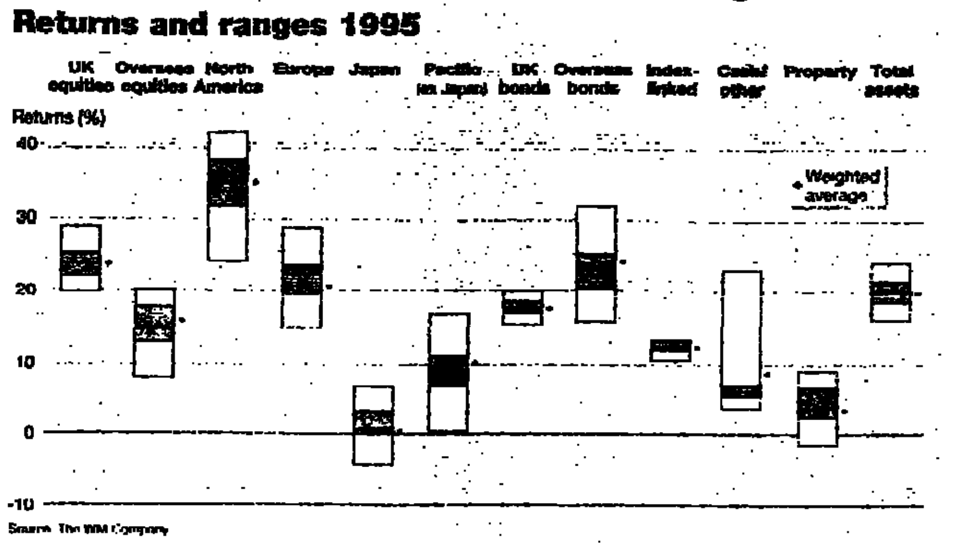
Europe has been a favourite area for pension funds for some time, but Hambros' Mr Beauchamp warns that European governments have little scope for further cuts in interest rates and that company earnings will disappoint.

Property has been steadily declining as a proportion of pension fund portfolios, from 11.2 per cent in 1985 to 5.3 per cent last year. That is hardly surprising in the light of the category's poor performance; over the last 10 years.

In the US, some securities firms have been arguing that property is not a successful inflation hedge for institutional investors and that a basket of commodities would be a more suitable substitute.

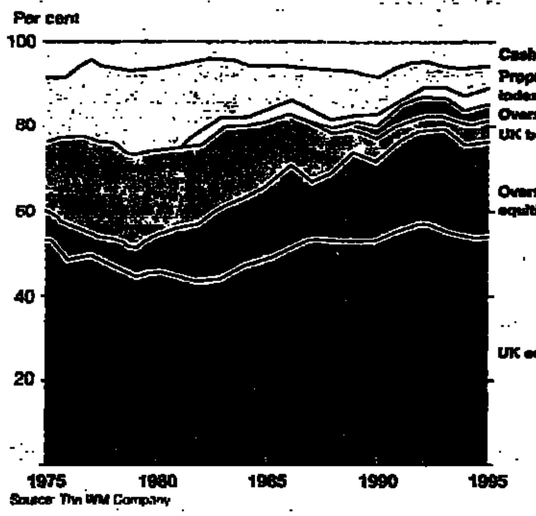
Finally, while there was an increase in cash weightings last year, this should not be taken as overwhelming evidence of manager's caution. At 4.5 per cent, cash holdings are still well below the 6-7 per cent recorded at the end of the 1980s.

Returns and ranges 1995



Source: The WM Company

WM all funds universe: asset mix



Source: The WM Company

Returns and asset mix on the WM All Funds universe, end 1995

	Returns (%)	Asset Mix (%)
UK equities	23.8	54
Overseas equities	15.7	23
North America	*35.1*	*4*
Europe	*21.1*	*8*
Japan	*0.5*	*5*
Pacific (ex-Japan)	*10.5*	*5*
Other International	*-2.2*	*1*
UK bonds	17.6	6
Overseas bonds	23.7	4
Index-linked	12.1	4
Cash/other investments	8.5	5
Total assets (Ex prop)	20.2	95
Property	3.5	5
Total assets (Inc prop)	19.1	100

Source: WM

■ **Gilts:** by Richard Lapper

More of the same please

Funds' growing appetite for these bonds does not extend to repo transactions

A combination of economic and regulatory pressures is forcing pension fund managers to step up their gilts investments. Figures from the Central Statistical Office, published in March this year, show the extent of the growth in interest. Pension funds have roughly doubled their holdings of gilts since 1991, with net flows rising from £2.77bn in 1992 to £2.83bn in 1993, £8.4bn in 1994 and £7.2bn in 1995. Flows into the gilts market were negative to the tune of £3.49bn in 1990.

By the end of 1995 pension fund holdings amounted to some £49bn, compared with only £24bn in 1992. During the same period pension funds have reduced their holdings of UK and overseas equities, with net investments dropping by £6.83bn in 1993. During 1994 they recorded a modest rise of £370m.

Holdings of overseas equities have also dropped, declining by nearly £5bn in 1994 and rising by a mere £4m last year. There is also some anecdotal evidence that within this general context funds have begun to increase their holdings of index-linked paper in particular.

"We have seen more investment in index-linked paper than in conventional gilts," says Mr Paul Abberley, a director with Lombard Odier Investment Management Services. "Actuaries are saying that index-linked is the way to go and allocations to index-linked are becoming more common."

The shift is occurring for several reasons. Since the early 1990s inflation has fallen steadily in the UK, reflecting international trends as well as the success of the government's new counter-inflationary strategy, including the adoption of an inflation target and a greater degree of independence for the Bank of England.

This has benefited gilts which have underperformed equities to a much lesser extent. BZW's gilt price index rose by 8.7 per cent in 1992 and 19.3 per cent in 1993. The index fell by 18.1 per cent in 1994 before recovering by 10.3 per cent last year. Meanwhile BZW's equity price index rose by 14.8 per cent and 23.1 per cent in 1992 and 1993, fell by 7.9 per cent in 1994 and rose by 18.6 per cent last year.

"If we are moving to an environment where inflation is going to be lower, there will be less to lose by investing in gilts," says Mr Simon Briscoe, chief UK economist at Nikko Securities, the Japanese securities house.

All of these changes are affecting the psychology of both pension fund trustees and their investment managers. Mr Briscoe says that the latter are re-evaluating their overall approach to the market. "If gilts have outperformed equities in a certain quarter, the fund manager knows he will be under pressure from trustees. They are very nervous about missing out on gilt rallies."

Despite their increased exposure to gilts, pension funds are as yet showing little interest in two of the main elements of gilts market reform introduced over the past year and a half. Repos – introduced for the first time in the UK earlier this year, when restrictions limiting bond borrowing and lending were removed – have been more or less ignored by pension funds.

Although repos should increase the extent to which pension funds can earn extra revenues on their bond portfolios, most of their investment managers make use of traditional stock lending arrangements for this purpose, and have been reluctant to modify systems and develop the documentation necessary to participate in the new market. One problem frequently mentioned by investment managers is the technical difficulty of managing the large quantities of cash generated in repo transactions.

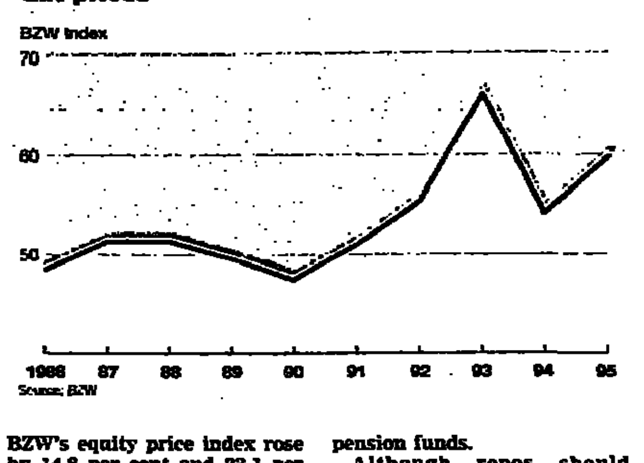
"Repos have been slow to take off," says Mr James Johnston, investment director of UK fixed interest at AMP Asset Management. "Many managers are still using stock lending facilities. Repos can sometimes offer a higher return but there are costs involved in starting to use them."

"It may snowball down the line but it is a slow process," adds the head of gilts sales at one market-making firm. "People are watching and waiting to see the effects."

Strips, zero coupon bonds created when the coupon is stripped from a bond and traded separately, which the government will introduce early next year, will also have relatively few attractions for pension fund managers – at least in the short term. New instruments, such as longer-dated zero coupon bonds, will allow them to take tactically bullish views more easily.

Investment managers say that they are unlikely to use strips in a strategic fashion on behalf of pension fund clients, and that insurance companies are more likely to use the new instruments for matching assets and liabilities.

Gilt prices



Source: BZW

The Bank of England has played a key role in combating inflation

■ **Derivatives:** by Samer Iskandar

Faith eroded by scandal

The slow expansion of derivatives instruments into the pension fund market has stalled

The aversion of many pension funds to derivatives is enshrined in restrictions or outright prohibitions in their trust deeds, the blueprints for their management. This fear has been reinforced by recent scandals, such as the collapse of Barings, nipping in the bud a shift towards greater exposure to geared instruments prompted, in part, by the maturing of many schemes.

Approximately half the pension funds in the UK are now allowed – or allow outsiders who manage money for them – to use financial derivatives. However even among those, only a small proportion actually do use them. According to the WM Company, which measures the performances of 1,455 pension funds, only 479 of these make use of some form of derivatives. The underlying amount of derivatives traded by these funds in 1995 was in excess of £40bn.

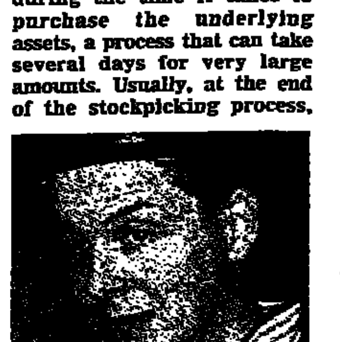
Traditionally, the trustees and directors who oversee the management of funds have been risk-averse, because they are ultimately answerable to the pensioners. In recent years however, as funds have become more "sophisticated", they have been compelled to relax their restrictions in order to remain in line with fast-developing markets. But overall the use of derivatives is still strictly controlled.

"Pension funds are increasingly relying on these products for tactical asset allocation, and sometimes to manage their currency strategy", says Mr Graham Wood, a client consultant at the WM Company. "But the vast majority still use them only to hedge the currency exposure on their holdings of foreign equities."

Currency hedging is usually achieved through conventional currency swaps, rather than the use of more leveraged instruments. A few years ago, pension funds started to trade currency options, but the amounts involved have shrunk sharply in the wake of recent incidents, such as the Barings collapse.

One futures and options salesman at a large Swiss bank recalls: "Between 1990 and 1994, we were doing more and more sophisticated options trades for pension funds. Most of them stopped, and those that still trade options now limit themselves to buying calls or puts."

Asset allocation via derivatives is usually a precursor to buying the underlying asset: to avoid underexposure, or the possibility of missing out altogether on a strong market performance, the fund manager will invest in index futures – or futures funds – that replicate the market's performance during the time it takes to purchase the underlying assets, a process that can take several days for very large amounts. Usually, at the end of the stockpicking process, futures positions are substantially reduced.



Barings bogeyman: Nick Leeson's huge losses alarmed trustees

There is also a marked behavioural difference between companies that manage their pension funds internally and those that subcontract this task to outside fund managers. The former tend to shy away from derivatives altogether, mainly because their trustees are not equipped to evaluate the risks. When the funds are managed by outsiders, the trustees always impose strict guidelines.

According to Mr Heinz Binggeli, managing director with Emcor, a US risk management consultancy, the most common caveats are "use derivatives only to hedge", or "absolutely no leverage". Structured notes are almost always excluded.

Incidents such as the Barings collapse or the losses incurred by Orange County have left their mark. Mr Sohail Jaffer, deputy chairman of the European Derivative Investments and Funds Association (EMFA), points to "a dip in derivatives usage between 1993 and 1995". According to a recent study by Greenwich Associates, a US financial markets consultancy, only 2 per cent of US and Canadian public sector pension funds and 3 per cent of endowments which did not use futures in 1995 would consider using them. In 1993 the levels were 6 per cent and 8 per cent respectively.

Attractive returns in emerging markets are increasingly tempting fund managers, but limited liquidity in most of these sectors has always acted as a deterrent. The use of equity swaps, which allow an investor to achieve the performance of a given market, say Mexico, by pledging the returns of another – shares listed on the London Stock Exchange for example – offers a very efficient way to circumvent liquidity problems. Index futures, as well as options on individual stocks, are used by some managers as a way to benefit from emerging markets' performance without investing large sums.

Fiscal considerations can also lead to the same logic: foreign investors in Italian bonds, for example, can claim back a 12.5 per cent withholding tax on coupons; but the process can take several months. Fund managers find it easier to trade Italian bond futures to achieve the same performance, while avoiding associated problems and costs.

New over-the-counter products offer the chance to lock in a market's performance and then retain the upside potential with a total guarantee against losses.

The minimum funding requirement (MFR), which will be gradually implemented in the UK in coming years, is also likely to boost demand for hedging instruments. Mr Girish Reddy, co-head of equity derivatives at Goldman Sachs, believes that by imposing a minimum level of pension fund assets to liabilities, the MFR "is likely to make pension fund managers more sensitive to the downside performance of their assets relative to liabilities".

■ **Global bonds:** by Barry Riley

Sticking to the foothills

Funds' exposure to the mountain of outstanding debt is unlikely to rise significantly

Global bond returns once again switched rapidly from rags to riches in 1995, and after the disappointments of 1994 there was a strong case to be made for the establishment of global bonds as a separate asset class for pension funds.

The big UK pension funds in the WM Company's WM 50 Universe did especially well in overseas bonds last year, scoring a return of 35.7 per cent, higher even than the 23.7 per cent return on UK equities and some eight percentage points higher than UK gilt returns.

However, British pension funds remain unenthusiastic about global bonds. The average allocation was little changed last year at 3.6 per cent of aggregate year-end assets, and in fact the exposure has scarcely changed since 1991. Meanwhile exposures to gilts – both fixed interest and index-linked – have climbed from 7.0 per cent to 10.4 per cent over the past two years.

In contrast US pension funds appear to be taking a more positive view about the role of global bonds in their portfolios. A number of specialist bond management firms in London are benefiting from a flow of business across the Atlantic.

"There is more movement in the US than in the UK so far," says Mr Paul Abberley, head of fixed interest at Lombard Odier in London. But he complains about the lack of specialist mandates from UK pension funds: "It still seems pretty thin."

Much of the overseas bond exposure which is evident from the UK pensions industry figures appears to reflect limited allocations by the big balanced managers. There is little evidence that UK pension fund trustees are ready to hire specialist global bond managers.

There is a contrast here with Continental countries such as the Netherlands and Switzerland, where there is at least a trickle of mandates. But in such countries there is a natural inclination to invest in international bonds to diversify big domestic bond exposures. UK funds, however, would much rather diversify into overseas equities, which account for some 23 per cent of their portfolios.

"There's more activity in Europe where people are interested in diversification away from their own small domestic bond markets," says Mr Jon Baillie, who researches bond managers for consultants Frank Russell. "But to begin with, they want to extend elsewhere in Europe rather than globally."

What is the possible appeal of global bonds? First, they have recently been offering attractive, if rather variable, returns. Average annual overseas bond returns in sterling for UK pension funds have been running at 16.6 per cent over the past five years, as good as for UK equities, and with the advantage of adding diversification.

But there are two points to note here. One has been the weakness of the pound, which has raised all overseas asset returns. If sterling stabilises in future this attraction will disappear. The other element of the high return has been that the governments of mature countries all over the world have become deficit-ridden and have been forced to issue bonds at almost any price. The risks have therefore risen.

This desperation corresponds, on the other side of the balance sheet, to an attractive investment opportunity for big international institutions, at least so long as the issuing countries are not driven into default. Total net issuance by the 13 or so governments with high enough investment ratings to figure in the JP Morgan or Salomon Brothers' global government bond indices is likely to run to more than $500bn in 1996.

After the recent back-up in long-term bond interest rates, real yields are running at 4 per cent or more in many countries. This is attractive for long-term investors. On the other hand, the rise in yields has temporarily led to capital losses and, in many cases, to negative total returns for the first quarter of 1996.

The unhedged dollar return on the Salomon Brothers World Government Bond Index was minus 1.9 per cent in the January-March period. The worst markets, such as those of the UK and the Netherlands, showed negative returns of more than 3 per cent.

The rising volatility of global bond markets has become a disadvantage. It appears to reflect the periodical intervention of short-term participants like hedge funds and the proprietary trading desks of the big global banks.

For British pension funds there is also a psychological block, in that foreign currency bonds offer no obvious close match to any of their liabilities. This obstacle may be made more formidable by the forthcoming imposition of a minimum funding requirement based only on UK equities and gilts.

Active global bond management also involves a lot of currency and yield curve speculation, which clashes with the risk-averse approach of the typical pension fund trustee.

Meanwhile global bond managers are seeking to adjust to turbulent markets which have penalised those relying on longer-term trends. Many managers picked themselves up last autumn after an unfortunate 18-month period of underperformance against the indices, only to run into turbulence during the winter which, at the extreme, knocked some 13 per cent off the price of the US Treasury long bond.

However, flash results for the Frank Russell universe for the first quarter suggest that the median manager has just beaten the benchmark.

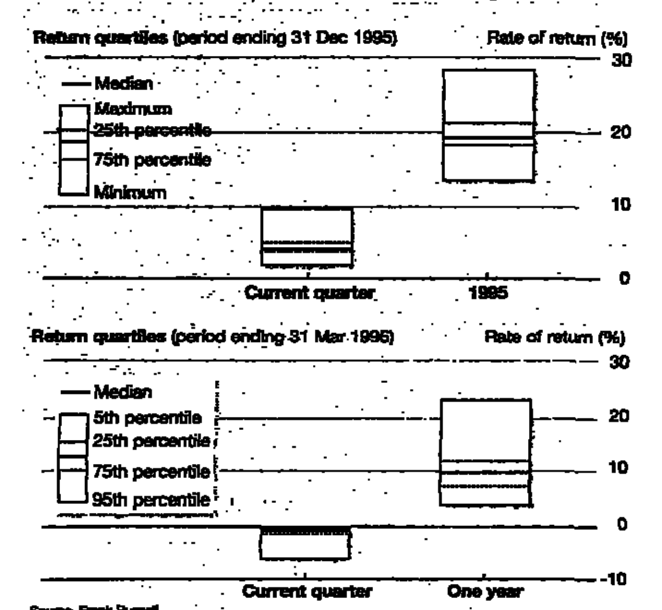
Over the past ten years global bond managers have found it fairly easy to beat the indices by adding value in currencies or dabbling in higher-yielding corporate or second-line government paper.

But the risks appear to have increased, and 1994, in particular, was very difficult. In 1995, however, according to Frank Russell, the median manager just beat the index returns thanks to a good final quarter.

So why global bonds? The answer has to be: "Because they're there." Mr Henry Kaufman, the US-based bond expert, has pointed out that the global bond market has been growing at an average of 14 per cent a year for 25 years. The total of outstanding debt now approaches the equivalent of $20,000bn.

Pension funds in many countries are seeing the potential of this global pool of bonds. But the risks are not always easy for plan sponsors to understand and accept.

Global fixed income portfolios – unhedged



Source: Frank Russell

■ **UK managers:** by Barry Riley

Leaders pull further ahead

There is little long-term difference between top managers' performances

They *do* come back. That is a cause for satisfaction for several UK segregated pension fund managers – such as Morgan Grenfell and Prudential *Portfolio Managers, where to* varying degrees fortunes have revived after bad patches – and a source of hope for others, at present under a cloud.

But managing pension funds remains a hazardous business, in which a few winners grab the spoils. There is ever more concentration of business evident in our table of the top 25 managers: the top five this year together control 64 per cent of the funds managed, against 59 per cent a year ago.

The recent takeover of Gartmore by National Westminster Bank will have enhanced this trend, taking Gartmore's expanded operation towards the £30bn mark.

Several smaller managers, however, have suffered substantial business losses, most noticeably Henderson, which saw its funds halved. But maybe clients should have been more patient. As they *headed for the exit, Henderson* was clocking up one of the best one-year returns in 1995.

Only Morgan Grenfell seems to be making a convincing attempt to catch up with the *leading five. It is the star of* current beauty contests, with the second-highest growth rate for funds under management in 1995, at 43 per cent.

The biggest gainer was the quantitative fund management *arm of* Barclays, now with the inelegant title of BZW Barclays Global Investors. Growth of almost 50 per cent reflected not only the continued adoption by pension fund trustees of low-risk, low-cost indexation but *also the impact of the merger* with Wells Fargo's asset management business.

Perhaps the year's most notable revival was right at the top of the list, at the indus*try leader Mercury Asset Man*agement (MAM). Despite the distraction of demerging from its former parent, SG Warburg, it enjoyed a cracking year for investment performance, although as usual it will not disclose any figures. It appeared to be seeing clear benefits from the internal restructuring it has undertaken in the last two years.

Twelve months ago it seemed possible that MAM might soon be overtaken in terms of funds under management by its fast-closing rival PDFM, an offshoot of Union Bank of Switzerland. If PDFM had not suffered a bad year for investment performance it might have got near: its 1995 investment return was probably 5 or 6 per cent points worse than that of MAM, making a difference of more than £2bn to its total pension portfolios by the year-end.

MAM is the first pension fund manager in the UK to *have faced the need for* a second-stage restructuring. "Having gone through that process of rejuvenation we are feeling very good," says Mr Colin Clark, director of business development.

Many other companies have faced the challenge of a first-*stage reorganisation as they* grow from being a boutique to an institution; Newton, for instance, has recently been experiencing this transition. The second-stage crisis looms at a much larger size, when the manager can no longer deliver almost identical performance to all clients and must re-engineer its approach on a more diversified basis.

> MAM is the first manager to tackle second-stage restructuring

Six teams within MAM now handle its pensions business. Three tackle different size bands, starting at £15m. Another team deals with *specialist mandates.* Two others handle pooled funds and defined contribution schemes respectively.

All of them draw on central resources of research and risk control. Performance presumably *varies between the teams,* but was strong across the house last year, boosted by good stock selection both in the UK and overseas. To give an idea, the £2.5bn pooled fund – whose performance is disclosed – returned 21.1 per cent in 1995 against a CAPS median *for this sector of* 18.5 per cent.

Sometimes performance can be *too* good. The top position in our five-year performance league table has become a rather dangerous spot; two years ago Newton reigned supreme but has now suffered two bad years in a row, while last year's high-flier PDFM slumped in 1995 although it is still narrowly holding off the *competition over* five years.

In a year for fashionable growth stocks, value-oriented PDFM was a fish out of water. It was underexposed to equities too because it believes that stock markets are becoming *seriously* overpriced.

PDFM's investment director Mr Tony Dye is one of the City of London's biggest bears. Thus the 1996 edition of the company's survey *Pension Fund Indicators* glumly warns pension fund sponsors to "allow for the possibility of a *future spell of dull returns*".

As for Newton, it had a terrible first quarter in 1995, especially in overseas equities. "We've had to tighten up the investment process," admits founder Mr Stewart Newton, *who this year has relinquished* the chief executive's role and *has refocused on his responsi*bilities as investment director.

There is more specialisation among Newton's individual managers, and a Quantec risk control system has been adopted. But Mr Newton says there is no reason to change the basic approach which pro*duced excellent* performance for many years.

In any case, Newton is not seeking new pension fund business. "We don't expect to reopen until we are perceived *by the outside world to have* got things together," says Mr Newton. He adds that last year's deal with Royal Bank of Scotland, which now has a large minority stake in the company, did not cause the *performance problem but* may have delayed the response.

*Prudential Portfolio Manag*ers is much further along the road to recovery, having picked up after bad performance in 1993. In 1995 it shared top spot with Morgan Grenfell, scoring a return of 21.5 per cent, *almost 2 percentage* points ahead of the median.

The Pru aims to be a "safe" manager. "We have reviewed the way we put portfolios together to ensure that deviations from the median performance are dampened down," *says Mr Rodney Dennis,* UK investment head at PPM.

Moreover Prudential sees scope to offer pension fund clients the benefit of its extensive experience as a big life office in modelling assets and liabilities. *The trend towards defined con*tribution structures could also *be in the Pru's favour.*

So the short-term ups and downs of fortune continue to affect segregated pension fund managers quite strongly. But in the long run, or even the medium term, is there a great *deal of difference between* them? Is there a reasonable hope of picking a manager that consistently outperforms?

Not according to a study of three-year returns by *Mr* John Shuttleworth, an actuarial *partner at* accountants Coopers & Lybrand. The results, he says, are "not kind to the investment managers".

A typical trustee objective is to outperform the median fund by 1 per cent a year over a *rolling three-year period. But* no manager has consistently achieved this target over the past five years. Only Schroders has achieved even reliable 0.5 per cent outperformance: it had a quiet 1995 in terms of one-year returns, but its track record continues to pull in *large volumes of new business.*

A feature of the latest five-year performance league table is that the leading managers are in fact all tightly bunched. The top four active managers (excluding the disclosure-shy *MAM) are confined within a* spread of 0.4 per cent in terms *of annualised return.*

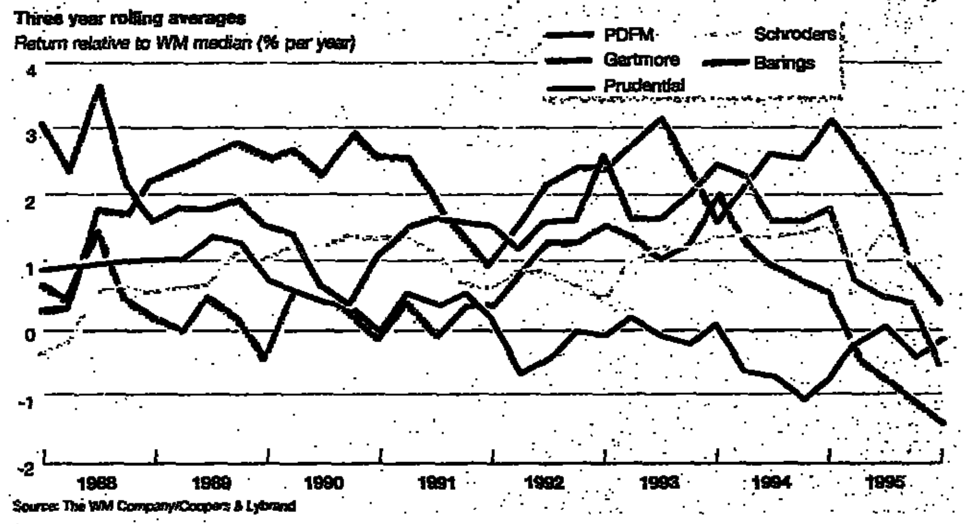
Perhaps this is not surprising, given that asset allocation varies only by tiny margins in most cases (PDFM is an exception) and stock selection volatility is nowadays controlled *by sophisticated risk control* systems. The herd is still running strongly.

Performance of segregated funds, to end 1995

	Over 5 years	Over 1 year
PDFM	+17.0	+16.0
Morgan Grenfell Asset Management	+16.9	+21.5
Gartmore Pension Fund Managers	+16.8	+19.4
Jupiter Asset Management	+16.7	+18.7
Schroder Investment Management	+16.6	+19.3
M&G Investment Management	+16.6	+19.2
Clerical Medical Investment Group	+16.5	+19.5
HSBC Asset Management	+16.4	+21.2
CAPS Median	+16.3	+19.6
Prudential Portfolio Managers	+16.1	+21.5
Cazenove	+16.1	+20.9
Henderson Pension Fund Mgt	+16.0	+21.4
BZW Investment Management	+15.8	+20.8
Newton Investment Management	+15.8	+14.1
Fleming Investment Management	+15.7	+20.0
Baring Asset Management	+15.7	+16.1
Invesco	+15.5	+18.6
Threadneedle Asset Management	+15.4	+20.8
Rothschild Asset Management	+15.1	+21.1
Hambros Fund Management	+14.8	+16.2
BZW Barclays Global Investors	n/a	+20.4

Figures are median fund performance, including property. The only firm which specifically excludes property is Cazenove.

Segregated fund performance



Source: The WM Company/Coopers & Lybrand

Top 25 segregated pension fund managers

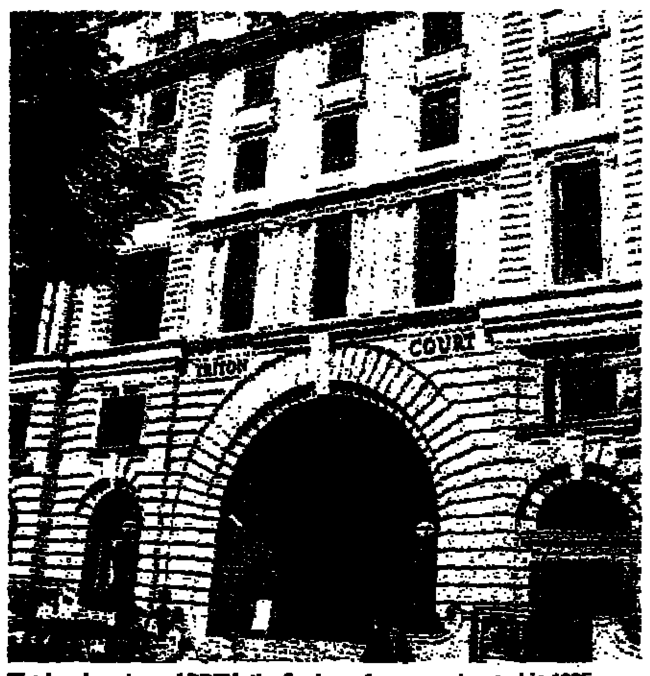
	Value of segregated funds			No of individual funds		Total funds managed		
	1994	1995	% chg	1995	1993	1994	1995	% chg
Mercury Asset Management	48,690	40,268	+20.9	1002	908	75,622	62,904	+20.2
PDFM	44,128	34,064	+29.5	369	336	48,338	37,515	+28.8
Schroder Investment Mngt	37,000	26,585	+39.2	286	246	74,000	57,585	+28.5
BZW Barclays Global Investors¹	21,547	14,382	+49.8	206	171	170,000	23,576	+0.0
Gartmore Pension Fund Mngrs	17,802	15,301	+16.3	211	210	24,778	20,828	+19.0
Morgan Grenfell Asset Mngt	12,265	8,646	+41.9	155	125	60,805	30,927	+96.9
NatWest Investment Mngt 2	11,636	9,800	+18.7	122	87	34,155	30,800	+10.9
Hill Samuel Investment Mngt3	10,830	n/a	n/a	57	n/a	27,888	n/a	n/a
Fleming Investment Mngt	9,146	7,589	+20.5	95	120	55,635	48,631	+14.4
Prudential Portfolio Mngrs	9,148	9,689	-5.6	48	59	82,100	70,800	+16.0
Baring Asset Management	7,300	8,300	-12.0	93	124	25,600	27,800	-7.9
Baillie Gifford	5,906	5,253	+12.4	68	76	11,200	10,589	+5.8
HSBC Asset Management	4,981	4,226	+17.9	199	180	11,821	10,061	+17.5
Newton Investment Mngt	4,795	4,179	+14.7	84	86	9,667	8,648	+11.8
BZW Investment Mngt⁶	4,606	4,474	+3.0	33	29	34,653	31,932	+8.5
M & G Inv Mngt	3,689	3,009	22.6	40	31	16,690	14,032	+18.9
Jupiter Asset Mngt	3,497	2,764	+26.5	41	36	5,223	4,012	+30.2
Clerical Medical Inv. Group	2,311	1,999	+15.6	41	44	14,138	11,649	+21.3
Cazenove	2,146	2,109	+1.8	85	90	8,160	7,494	+8.9
Henderson Pension Fund Mngt	1,981	4,159	-52.5	48	77	11,180	11,869	-5.8
Kleinwort Benson Inv Mngt 4	1,698	1,765	-3.8	63	73	13,369	12,000	+11.4
Hambros Fund Mngt 5	1,418	n/a		32		7,000	n/a	
Rothschild Asset Mngt	1,287	1,688	-23.8	30	40	10,026	10,210	-1.8
Invesco	1,254	1,909	-34.3	37	67	53,816	41,723	+29.0
Threadneedle Asset Mngt	1,216	1,070	13.6	14	15	29,544	27,699	+6.7
Total	270,275	213,238	+26.7	3,455	3,236	915,498	613,283	+49.3

1 Merger of BZW Investment Management's Quantitative Division with Wells Fargo Nikko Investment Advisors 1/96.1994 total funds managed are premerger. 2 Merger with Gartmore 2/96. 3 Merger of Hill Samuel Investment Management and Lloyds Investment Managers. 4 1994 total funds adjusted to reflect sale of funds managed by a US subsidiary 1995. 5 Formed 4/96. Figures are for Hambros Bank. 6 conventional active management

Pooled pension funds

Largest Pooled Funds	£bn
Scottish Widows	5.0
Scottish Equitable 'B'	2.7
Mercury Mgd Fund Service	2.5
Confederation Life	2.5
Prudential	1.6
Newton Exempt Fund	1.3
Schroders U.T.	0.9
Gartmore	0.9
Gen Accident	0.9
Standard Life	0.9

Notes: at December 31 1995 Source: Combined Actuarial Performance Services



The headquarters of PDFM: the firm's performance drooped in 1995

Pooled pension funds

Top 10 returns (5 yrs)	£bn
Abbey Life	22.7
Glasgow Invtmt Mgrs	22.7
Morgan Grenfell	18.3
Bank of Ireland	17.[illegible]
Schroders UT	17.7
Britannia	17.4
Fidelity	17.4
Mercury Mgd Fund	16.8
Albert E Sharp	16.6
Swiss	16.6
CAPS median	15.4

Mixed with property performance, annualised, to 31/12/1995, 56 funds measured. Source: CAPS.

PROFILE Gary Brinson

US manager with balance

Mr Gary Brinson's entry into the UK pension fund market is a sign that US-based global managers are becoming more aggressive. As a start, his company has won a US specialist brief from the Civil Aviation Authority's pension fund.

Most of the pension fund *mandate traffic across the* Atlantic has so far been from east to west, as British investment managers sell their global investment expertise to US clients. But Mr Brinson is one of the *newer breed of* internationally-oriented US managers.

Brinson Partners was founded in 1981 as a unit of First National Bank of Chicago. After being spun off in 1989 *it was absorbed into* Swiss Bank Corporation in April 1995. Under the name SBC Brinson it now runs all SBC's global institutional management business outside Switzerland.

> US investment managers now have an exploitable opening in the UK pension fund market

Worldwide assets totalled $53bn at the end of last year, and within that the company *managed over $16bn in global* portfolios for US institutional clients, making it the largest active manager in this sector. Half of the group's total assets are outside the US.

Brinson Partners – this is still the trading name within the US – is the exception to the rule that globally-oriented US managers are usually to be found on the east or west coasts, in Boston or Los Angeles, for example.

"Chicago is a terrific place," insists Mr Brinson. "We're not caught up in the fads and fancies of Wall Street. We can march to the beat of our own music."

But he also *maintains* offices in six other centres around the globe, including London. Although strategy is decided centrally in Chicago, SBC Brinson aims to carry out research and analysis as *much as possible within local* markets.

US-based managers now have an exploitable opening in the UK pensions market. The poor performance of London-based managers in US equity *stock* selection *over* the years was further emphasised in 1995, when the CAPS median fund in the UK returned nearly 4 percentage points less than the 37.9 per cent index return on Wall Street.

These UK managers also got asset allocation wrong – last year they were extremely underweight in Wall Street, which was easily the world's best-performing large stock market. "US equity accounts will be an entry point," says *Mr Brinson, who clearly has* his eyes on broader global mandates for UK clients eventually.

In fact he is entirely sympathetic to the view that Wall Street is overpriced. But as he points out, "being too early is indistinguishable from being wrong".

Brinson Partners' basic *style is that of a* multi-market, multi-asset class manager. It offers a global balanced style to its institutional clients, which is rather unusual at this time of increasing specialisation.

"Recently we have shifted money out of equities, especially US equities, into non-US bonds," says Mr Brinson. The firm has also found Brady bonds attractive – more so than equivalent emerging market equities.

SBC Brinson is a value investor which focuses on future cash flows. The assumption is that from time to time market prices and fundamental values *get out of* line.

"US investors spend a lot of time investing by looking backwards in the rear-view mirror," says Mr Brinson. "That creates excesses."

He adds: "The US equity market overvaluation is now greater than at any time since the summer of 1987. The prospective long-term return on US equities is 7 to 7½ per cent and investors won't be satisfied with that. The prospective return should be 8½ to 9 per cent.

"Equities could go through a period of lacklustre returns. Or the correction could be violent," he concludes.

Barry Riley

Gary Brinson: he is sympathetic to the view that US is overpriced

■ The US: by Maggie Urry

Perplexed by their success

Funds may tinker with their asset allocations to sustain high levels of return


Together but separate: DC plans are winning followers Glyn Genin

After a year like last one, when the Dow Jones Industrial Average rose by roughly a third, many US pension fund managers are asking: "What do we do for an encore?"

According to Greenwich Associates, the investment management research group, the typical US pension fund had 46.4 per cent of its assets in US equities at the end of 1995, up from 44.8 per cent a year earlier – a marked shift given the size of the industry. One plan sponsor which contributed to Greenwich Associates' annual survey, put the resulting question thus: "We have had superior returns – should we now make a further change in asset mix?"

Mr John Webster, a Greenwich Associates partner, says "It is incredibly difficult to know what to do after achieving a terrific return in the US." One answer is to invest more internationally, a trend which has been apparent for some years among US funds.

Figures from InterSec Research show growth in the proportion of funds invested internationally. Mr Jim Waterman, director of research at InterSec says: "Some funds think international equities present an attractive alternative to domestic", but he adds, the rise in international exposure is "a long term process rather than a tactical one".

However, international investment poses a problem for funds, Mr Webster says. While many are interested in emerging markets, and particularly in Pacific Rim countries, their lack of liquidity and higher risks makes them unsuitable destinations for more than a small amount of funds' assets.

Meanwhile, Japan is a difficult market to assess at present. Europe also raises challenges; some markets are near record highs, while reunification still poses problems in Germany.

Even so Greenwich Associates found that investors were expecting a 10.5 per cent return a year from their international equity investments, while US equities are forecast to return 9.8 per cent. They expect their asset allocation of international investments to rise over the next three years, while domestic equity weightings are due to fall slightly.

Ms Gloria Reeg, head of consulting at Frank Russell, the pension consultants, says that in general funds are not changing their asset allocation targets, although many are looking at how to rebalance their portfolios in the light of last year's returns. Should they use cashflows to adjust percentage weightings, or incur transaction costs in selling assets from an area where they are now overweight?

One beneficial effect of the rise in the US equity market has been to offset the negative effect of lower interest rates on pension fund solvency.

As pension funds use long term interest rates to discount future liabilities, a fall in interest rates actually increases funds' future outgoings. Thus in 1994, when interest rates rose and bond markets fell, reducing the value of funds' fixed income assets, solvency improved because liabilities dropped by more than asset prices.

Ms Reeg estimates that in 1995 the impact on liabilities of lower interest rates was more than offset by an increase in assets through the rise on Wall Street, although she warns that final figures are not yet available.

Aside from the question of where to invest their money, plan sponsors are also looking hard at the funding basis of pension schemes. The choice is between defined benefit (DB) plans, where pension levels are fixed according to a pre-set formula, and contributions have to be made to meet these liabilities, and defined contribution (DC) funds, where contributions are fixed and the final level of pensions depends on investment performance.

The latter type continues to attract more money. Indeed, as the Greenwich Associates survey found, while DB plans as a whole are seeing a net cash outflow as benefit payments exceed contributions, DC plans are still enjoying positive net cash flows.

However, plan sponsors are increasingly concerned about educating members of DC plans to make wise choices. They can choose where their money is invested and can dip into their "savings" before retirement. Both freedoms can lead to poor choices being made, seriously depleting the final level of pensions.

While most experts believe that equities offer the best long term returns, some employees prefer the "safety" of fixed interest investments. To counter this, many plan sponsors are now offering so-called lifestyle funds. These take into account an employee's age and expected retirement date and adjust the portfolios accordingly.

Over the life of the fund the asset allocation is changed gradually, becoming safer as its members age. Younger members contribute to a fund with a more aggressive approach, while the investments of those near retirement are more conservative.

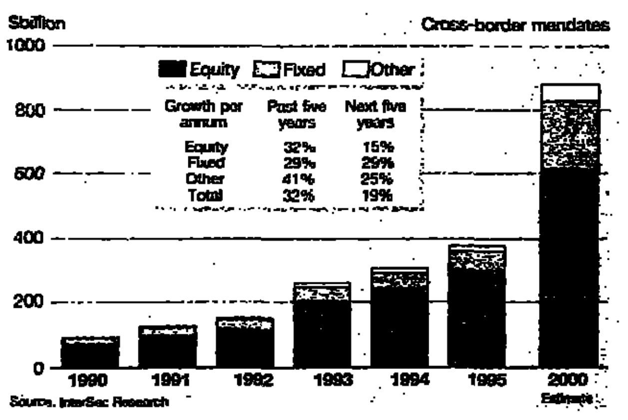
The other worry – that employees will take money out too early – can be countered by more education.

Net cash flow to pension funds[1]

Sector	1991	1992	1993	1994	1995*
Corporate $bn	-28.2	-32.4	-24.9	-10.2	-17.9
as % of assets	-2.4	-2.6	-2.0	-0.6	-1.4
Public $bn	+5.4	+6.2	-5.7	-2.7	-4.6
as % of assets	+0.5	+0.5	-0.5	-0.4	-0.3

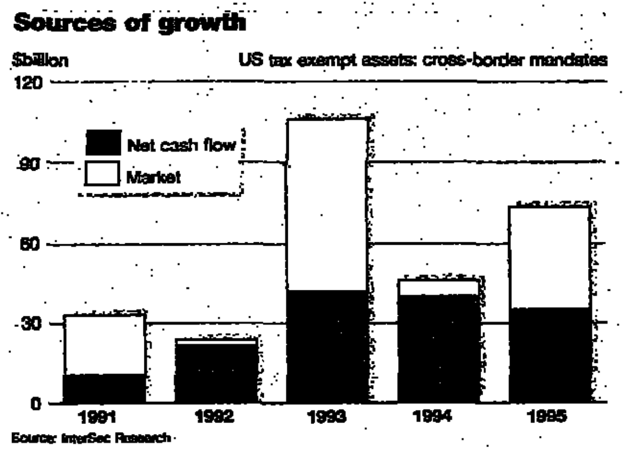
Notes: [1]Contributions less benefit payments. *Expected. Source: Greenwich Associates

US tax exempt assets



Source: InterSec Research

Sources of growth



Source: InterSec Research

Net cash flow - DB and DC pension plans ($bn)

Sector	1994	1995*
Corporate		
DB	-15.0	-25.2
DC	+4.8	+7.3
Public		
DB	-3.1	-4.6
DC	+0.3	+0.1

Notes: *Expected level of cashflow. Source: Greenwich Associates

■ Japan: by Gerard Baker

The elderly are expensive

Liberalising the pension fund market will not forestall a cash crisis


No passengers: the young could face a heavy burden supporting the old when they are old enough to work

Few countries face a pensions crunch on the scale of Japan's. Not only does the nation have a rapidly ageing population, soon set to put a heavy burden on public and private sector pension fund finances, but the financial chaos of the last few years has cut deep into the returns actually achieved by those funds. Add to that a panoply of regulations that restrict the efficiency of the country's pensions market, and you have the makings of a real crisis.

But there are signs that the authorities have recognised the gravity of the problem. The opening of the country's financial markets are the route they have chosen to ease the pressure on the system.

Japan's arrangements for retirement provision are characteristically complex. All employees, private and public sector, pay a flat sum into the national pension scheme. Most of them also pay a higher earnings-related element into another state-run fund. This figure is currently 16.5 per cent of salary, split evenly between employee and employer.

But since that figure is still expected to produce a pension of roughly just 45 per cent of final salary for most employees, a growing number are now also covered by company plans, again paid for jointly by employer and employee.

Japanese pension funds are worth about Y190,000bn ($1,759bn) in all, of which nearly three-quarters by value are held by the public sector.

In the next two decades, the demand for these funds is set to grow at a pace way beyond their capacity to meet it. A combination of radical demographic changes and poor investments have put Japan's pensions system in a vice.

The most pressing problem is the familiar one of an ageing population. Within twenty years the proportion of pensioners within Japan's population will have risen from under 15 per cent to 25 per cent. The burden on today's workforce is growing heavier. According to research by Goldman Sachs, the US investment bank, while today's pensioners are likely to receive total pension payments of over four times the sum of their contributions made in their working lives, workers in their twenties will actually have to pay more in contributions during their careers than they will receive in pension payments.

The government has belatedly begun to increase mandatory contribution rates for employers and employees in the supplementary pension schemes, with the aim of meeting this requirement. But even these changes are unlikely to suffice, because the demographic problem has been compounded by poor investments.

Most pension fund assets are entrusted to life insurers and trust banks to invest. Over the last five years the returns achieved by these managers have been hit hard by the long financial slump. In the late 1980s they invested in all sorts of risky assets. Their clients have paid the penalty since.

For example in the 1980s life assurance companies promised returns to their investors well above the yield on the benchmark 10-year government bond. They felt confident of their ability to meet these guarantees because they were securing big capital gains on their other assets.

But at the start of the 1990s they were hit by an unprecedented but not unforeseeable series of blows: the stock market collapsed; land prices plummeted, the yen rose sharply; and interest rates began to fall. Within a few years life assurers were no longer able to achieve the yields promised, but initially they continued to guarantee them nonetheless. Only as the recession deepened three years ago did the life companies belatedly begin to cut their guaranteed yields .

In a normal market pension funds would have moved their assets to more successful managers as returns began to slide. But Japan is different. A tough regulatory system ensured that the life companies and the trust banks enjoyed a virtual duopoly in asset management.

In 1985 some outsiders – including several foreign trust banks – were permitted to compete for business from the private sector. But the market share gained by these outsiders was small.

As the returns achieved by established managers fell, the pressure for change intensified. Japanese public sector fund managers in particular looked on in horror as their funds, held captive by the life companies and trust banks, underperformed world markets. Between 1990 and 1993, the average pension fund in the US achieved a compound yield of over 50 per cent, but in Japan the figure was 10 per cent.

Two years ago, acutely aware of the long-term demographic time-bomb, the authorities decided to act. They agreed to open up much more of the market to outsiders.

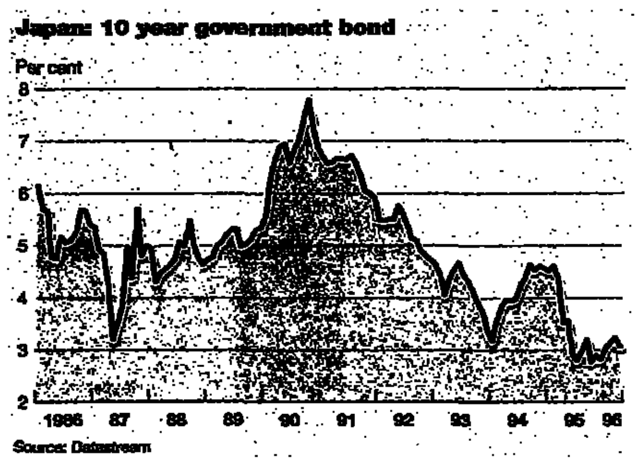
The biggest changes were made to the management of public sector pension funds. Nempuku, the Japanese body responsible for allocating up to $200bn in funds collected from national pension contributions was the focus of the change. Until a few years ago all these funds were entrusted to the life companies and trust banks. Now the entire fund is open to all comers, and US investment advisers have already moved in, taking some big contracts.

The other big reform has been to allow corporate pension funds to hire foreign investment managers, a change that is already beginning to bear fruit. In the last year more than twenty big Japanese companies have allocated part of their pension funds to foreign managers for the first time.

Nevertheless only a relatively small proportion of the total market can be described as genuinely open. And regulations governing the operation of such funds continue to limit pension funds' potential returns.

But most foreigners believe the changes now in place have ushered in a revolution whose biggest beneficiaries will be the ever-expanding ranks of future Japanese pensioners.

Japan: 10 year government bond



Source: Datastream

■ Continental Europe: by Peta Hodge

Governments beat a slow retreat

The EU is inching reluctantly towards introducing more private sector pension provision


In Germany workers' pensions are provided using book reserves, a system France may also adopt

Pre-funded private sector pension provision in Europe is poised for growth. The mix of state provision and unfunded private pension promises that currently dominate will become increasingly unsustainable as the ratio of pensioners to workers continues to expand.

So far the growth of private-sector pension provision in Europe has been unspectacular. Tax regimes are generally not designed to encourage the establishment of private funded schemes, and governments which seek to reduce state provision face considerable opposition – particularly in countries where dependence on state pensions is high.

As a recent FT management report, *Pension Fund Investment in Europe*, points out, in the UK, where the average state pension is worth less than 30 per cent of average pay: "The government's systematic reduction in the level of the state pension until very recently met with barely a murmur of protest." In Italy, however, where state pensions account for almost two-thirds of pensioners' average earnings, proposals for similar reforms met with mass demonstrations and threats of a national strike.

Opponents of change also fear that a switch from state to private provision will increase indirect labour costs and fuel unemployment.

Although European governments seem united in their desire to shed some of their pensions burdens, there is little homogeneity in their proposals for the future. Nor is there any uniformity in current practice. Whereas France and Italy have virtually no private sector pension funds, the value of pension assets in the Netherlands and Switzerland already exceeds their GDP.

The UK has the largest pension fund sector in Europe. According to the recent FT report, UK funds accounted for around 60 per cent of Europe's $1,450bn in pension fund assets at the end of 1994.

The UK also has the most established pensions advice industry in Europe, which sees itself as the natural beneficiary of an expanding European pensions market. What many UK investment managers, consultants and performance measurers are already beginning to realise however, is that the rest of Europe will not necessarily adopt the same methods as the UK for expanding private provision.

In France, for example, there is considerable interest in covering pension liabilities through book reserves in the balance sheet of employers, rather than building up separate funds. Book reserves have generally proved to be a very effective in Germany where they are worth some DM300bn ($198bn).

Even if a majority of European governments were to opt for a system of fully-funded private pension provision, it would be unlikely to greatly boost demand for foreign assets. According to figures from consultants William M Mercer, the average pension fund in Denmark, Finland, Germany, Portugal and Spain, has more than three-quarters of its money in domestic assets, which are mainly bonds.

This bias towards domestic bonds is partly attributable to the investment restrictions which still exist in many countries. The European Commission would like to remove these, believing that more overseas investment would allow pension fund assets to boost capital growth. But it faces entrenched opposition in many countries. A report by the European Federation of Retirement Provision (EFRP), to be published later this year, is expected to argue that employers' costs could be reduced substantially if greater investment freedom allowed pension funds to achieve enhanced returns.

The barriers to better investment performance are not just legal ones. Many European pension funds fail to take full advantage of the limited investment freedoms already available to them. There are a number of possible reasons for this, says Mr Koen de Ryck of the EFRP, including cultural bias and risk averseness. "It is not always possible to get better performance from outside the domestic market," he adds. "In the Netherlands some money managers have had a poor experience from diversification, and we have seen the same situation in Belgium and Switzerland. Diversification reduces risk but doesn't necessarily improve returns."

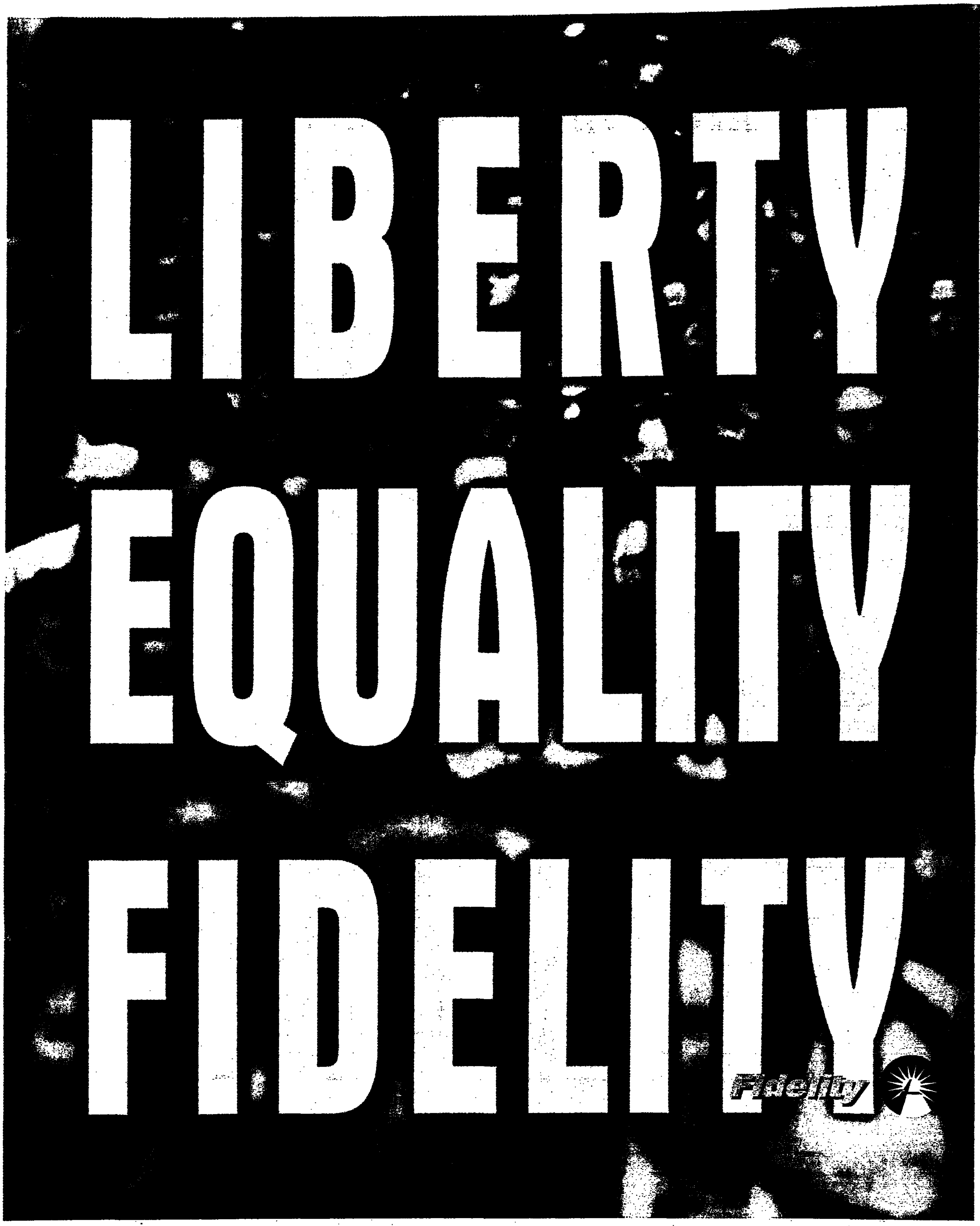
Even so, European pension funds are expected to become more international in their investment outlook. That does not mean that UK investment managers can expect new business to fall into their laps. "The market is becoming increasingly competitive," suggests Mr de Ryck. "The Americans are moving in with enormous capacity and different services , and Germany is getting in through the acquisition of investment managers by German banks."

To be successful in the wider European market, UK managers must be prepared to tailor their products. Analysts expect that many of the new pensions schemes that will be set up in the next few years will be established on a defined contribution (DC) basis, rather than on the defined benefits (DB) basis once popular with employers in the UK. In DB schemes the employer bears the risk of investment underperformance, but it is carried by the scheme member in a DC scheme. This dictates a different role for the investment manager (see article on p5).

In the UK, pooled arrangements are mainly used by smaller funds where segregated management is not deemed cost effective. In other parts of Europe funds of all sizes are happy to use collective investments. European funds, which do not share UK counterparts' long history of active management, are also more prepared to consider using methods of investment in which computers sift big volumes of data in search of opportunities.

Ms Julia Hobart of consultants William M Mercer warns against reading too much into apparent trends however – particularly in such an immature and rapidly changing market. "This may be more of a client thing than a country thing," she suggests. "Large funds in most established markets tend to have quite a lot in common," she says.

On the whole, Ms Hobart believes the prospects for UK investment managers in continental Europe are fairly good. "Domestic managers often get the largest proportion of assets," she says. "But when looking for specialist management outside their domestic markets, pension funds have tended to favour UK managers. Ultimately selection boils down to quality and whether a manager has the necessary skills."



A group money purchase scheme gives you the freedom to let your employees control their own pensions' future.

But it also means providing the information that each and every one will demand to make their own decisions.

Fidelity offers the only money purchase plan to allow your employees instant access to a dedicated hotline to answer their queries, give information and switch funds (within your scheme limits) when they want, as often as they want, at no extra cost to you.

The reason, maybe, why we are the largest money purchase provider in the US.

In the UK, we were also judged the best unit linked AVC provider for investment performance for the second year in succession.*

You'll only want to put a new pension scheme in place once. Shouldn't you have faith it's the right one?

THE REVOLUTION IN GROUP PENSIONS

If you'd like to know more, call us on 0345 234 235.

*Source: 1996 AVC Survey, Bacon and Woodrow. Investments will be made in authorised unit trusts managed by Fidelity Investment Services Limited, regulated by IMRO and the Personal Investment Authority. The value of investments may fall as well as rise and past performance is no guarantee of future returns. Issued by Fidelity Pensions Management, regulated by IMRO.

المقال من الأرشيف

CURRENCIES AND MONEY

MARKETS REPORT

Election worries push sterling to two year low

By Philip Gawith

Nervousness about heavy government losses in today's local elections yesterday saw sterling fall to a two year low against the dollar.

It fell to $1.4928 before recovering slightly to finish in London at $1.4965, from $1.5006. Sterling also lost ground against the D-Mark, finishing at DM2.295, from DM2.3012. The trade weighted index fell to 83.5, from 83.8. It remains some way above the historic low of 82.2 recorded last November.

The dollar turned in a steadier performance, finishing slightly firmer against the yen, following recent weakness, at Y105.115, from Y104.755. It was unchanged against the D-Mark at DM1.5336.

Volumes were fairly thin on account of many European markets being closed for May Day. The D-Mark was generally slightly firmer, although the lira did at one point rally to an 15 month high, at L1,016, before closing at L1,021.

The South African rand traded steadily again, finishing at R4.33 against the dollar, from R4.3225. South African markets were also closed.

■ Although sterling's fall was due largely to politics, it also contained a technical element, with the $1.5050 level being an important one. Analysts were fairly sanguine about the drop. They pointed out that a correction had been overdue, considering sterling's surprising recent strength, taking into account the government's fragile majority.

There are a number of concerns surrounding sterling. Mr Kit Juckes, currency analyst at NatWest Markets in London, says: "Despite the fact that consumer demand is showing signs of picking up, calls for lower interest rates and even lower tax rates, later this year, remain. Gilts offer attractive yield pick-up relative to some European markets, but certainly not relative to Treasuries."

He continues: "A pick-up in domestic consumption at a time when demand in the UK's major export markets remains virtually moribund, bodes ill for the balance of payments in the months ahead." With the political backdrop added in, he said a conclusive break below $1.50 was "only a matter of time".

Mr Brian Martin, economist at Barclays in London, said he did not expect any sell-off to be too rapid. "There is reasonable buying interest at lower levels."

Mr Joe Prendergast, currency strategist at Merrill Lynch in London, said the fact that sterling had fallen against both the dollar and the D-Mark showed that there were "specific sterling concerns in the market." But he said the depth of market pessimism was already so great as to offer protection against anything but the very worst election outcome.

■ Despite the dollar's recent losses against the yen, there have been some indications in Europe which testify to independent dollar strength, and not simply D-Mark weakness.

Mr Prendergast cited the dollar's breach of SFr1.24 against the Swiss franc, the equivalent of DM1.50 against the D-Mark; the resilience indicated by the dollar's bounce against the yen; and the breach of FFr5.18, against the French franc, as evidence of dollar strength.

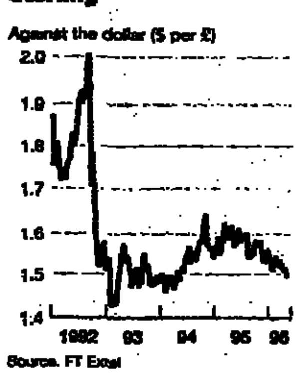
This view received some support from Mr Brian Marber, an independent technical analyst, who is predicting good things for the dollar against the Swiss franc, French franc and D-Mark in May. He is also optimistic against the yen: "Since there is no sign of any topping-out process in dollar/D-Mark, the likelihood of the dollar heading south against the yen for very long from current levels, while heading in the opposite direction against D-Mark for the next several months, is very small."

Mr Mark Cliffe, chief international economist at HSBC Markets, said the market remained puzzled about the direction of the dollar yen rate. "Speculation about higher Japanese rates is premature, but that kind of speculation is difficult to dispel while we keep getting indications of a pick-up in Japanese economic activity."

The dollar received a fillip from Mr Yasuo Matsushita, the governor of the Bank of Japan, who said the current account environment was not conducive to further yen appreciation. The market took this as confirmation that the BOJ would not sanction indefinite yen appreciation, but there was some doubt as to whether verbal intervention alone would suffice.

Sterling

Against the dollar ($ per £)



Source: FT Extel

■ **Pound in New York**

May 1	Latest	Prev close
£ spot	1.4955	1.5075
1 mth	1.4947	1.5067
3 mth	1.4934	1.5055
1 yr	1.4885	1.5014

■ **OTHER CURRENCIES**

May 1	£	$
Czech Rp	41.5254 - 41.5566	27.7530 - 27.7880
Hungary	221.203 - 221.554	147.900 - 148.080
Iran	4461.00 - 4462.00	3000.00 - 3000.00
Kuwait	0.4480 - 0.4490	0.2996 - 0.2999
Poland	3.9910 - 3.9912	2.6611 - 2.6661
Russia	7424.65 - 7434.10	4962.00 - 4966.00
UAE	5.4932 - 5.4962	3.6723 - 3.6725

POUND SPOT FORWARD AGAINST THE POUND

May 1		Closing mid-point	Change on day	Bid/offer spread	Day's Mid high	low	One month Rate	%PA	Three months Rate	%PA	One year Rate	%PA	Bank of Eng. Index
Europe													
Austria	(Sch)	16.1457	-0.0439	372 - 541	16.2578	16.1317	16.1145	2.3	16.0095	2.6	-	-	104.9
Belgium	(BFr)	47.1697	-0.1202	240 - 154	47.4300	47.1235	47.0647	2.7	46.9547	2.7	45.8347	2.8	106.8
Denmark	(DKr)	8.8458	-0.0262	406 - 510	8.8970	8.8351	8.8304	2.1	8.7976	2.2	8.6543	2.2	107.8
Finland	(FM)	7.2706	-0.0103	647 - 765	7.3380	7.2540	7.2661	0.7	7.258	0.7	-	-	81.1
France	(FFr)	7.7478	-0.021	448 - 507	7.7905	7.7364	7.7337	2.2	7.7058	2.2	7.5729	2.3	108.5
Germany	(DM)	2.2950	-0.0062	938 - 961	2.3117	2.2926	2.29	2.6	2.2786	2.7	2.2292	2.9	108.3
Greece	(Dr)	365.356	-0.643	859 - 852	367.172	364.855	-	-	-	-	-	-	67.0
Ireland	(I£)	0.9641	-0.0027	633 - 649	0.9674	0.9627	0.9633	1.0	0.962	0.9	0.9552	0.9	98.3
Italy	(L)	2343.44	-4.34	244 - 445	2353.23	2332.23	2351.69	-4.2	2366.79	-4.0	2419.49	-3.2	75.7
Luxembourg	(LFr)	47.1697	-0.1202	240 - 154	47.4300	47.1235	47.0647	2.7	46.8547	2.7	45.8347	2.8	106.8
Netherlands	(Fl)	2.5664	-0.0083	650 - 677	2.5865	2.5645	2.56	3.0	2.5473	3.0	2.4882	3.0	107.0
Norway	(NKr)	9.8530	-0.0245	441 - 619	9.9054	9.8417	9.844	1.1	9.8249	1.1	9.7262	1.3	98.3
Portugal	(Es)	235.175	-0.712	022 - 328	236.214	234.892	235.5	-2.2	236.505	-2.3	-	-	95.0
Spain	(Pta)	190.722	-0.403	620 - 823	191.738	190.511	191.032	-2.0	191.527	-1.7	193.182	-1.3	81.6
Sweden	(SKr)	10.2393	+0.0398	289 - 500	10.2510	10.1694	10.2407	-0.1	10.2434	-0.1	10.2448	0.0	88.4
Switzerland	(SFr)	1.8684	+0.0007	672 - 695	1.8764	1.8651	1.8622	4.0	1.8484	4.1	1.7917	4.1	111.9
UK	(£)	-	-	-	-	-	-	-	-	-	-	-	83.5
Ecu	-	1.2216	-0.0018	207 - 225	1.2275	1.2201	1.2203	1.3	1.2173	1.4	1.204	1.4	-
SDR†	-	1.040000	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	1.4905	-0.004	896 - 913	1.5055	1.4895	-	-	-	-	-	-	-
Brazil	(R$)	1.4848	-0.0041	840 - 855	1.4937	1.4813	-	-	-	-	-	-	-
Canada	(C$)	2.0387	-0.0043	376 - 398	2.0511	2.0335	2.038	0.4	2.0343	0.9	2.0263	0.6	84.6
Mexico	(New Peso)	11.0816	-0.1043	629 - 003	11.1572	11.0825	-	-	-	-	-	-	-
USA	($)	1.4965	-0.0041	960 - 970	1.5057	1.4928	1.4957	0.6	1.4946	0.5	1.4905	0.4	96.5
Pacific/Middle East/Africa													
Australia	(A$)	1.8964	-0.0121	951 - 976	1.9133	1.8910	1.899	-1.6	1.904	-1.6	1.9293	-1.7	92.8
Hong Kong	(HK$)	11.5771	-0.0304	725 - 817	11.6484	11.5490	11.569	0.8	11.5574	0.7	11.5376	0.3	-
India	(Rs)	51.8538	-0.2904	120 - 956	52.2330	51.8110	-	-	-	-	-	-	-
Israel	(Shk)	4.7834	-0.0098	788 - 880	4.8120	4.7785	-	-	-	-	-	-	-
Japan	(Y)	157.305	+0.115	185 - 425	158.640	157.180	156.58	5.5	155.09	5.6	148.675	5.5	139.8
Malaysia	(M$)	3.7300	-0.0121	280 - 320	3.7542	3.7216	-	-	-	-	-	-	-
New Zealand	(NZ$)	2.1838	-0.0102	817 - 854	2.1948	2.1790	2.1888	-2.7	2.1981	-2.6	2.2319	-2.2	107.3
Philippines	(Peso)	39.1559	-0.0985	054 - 064	39.3580	39.1050	-	-	-	-	-	-	-
Saudi Arabia	(SR)	5.6121	-0.0154	100 - 142	5.6462	5.5987	-	-	-	-	-	-	-
Singapore	(S$)	2.1044	-0.0054	029 - 058	2.1161	2.1019	-	-	-	-	-	-	-
South Africa	(R)	6.4799	-0.0062	702 - 895	6.5122	6.4801	-	-	-	-	-	-	-
South Korea	(Won)	1164.65	-3.15	419 - 512	1171.74	1161.85	-	-	-	-	-	-	-
Taiwan	(T$)	40.6614	-0.1093	448 - 780	40.9147	40.5639	-	-	-	-	-	-	-
Thailand	(Bt)	37.8166	-0.0723	890 - 442	38.0310	37.7230	-	-	-	-	-	-	-

† Rates for Apr 30. Bid/offer spreads in the Pound Spot table show only the last three decimal places. Forward rates are not directly quoted to the market but are implied by current interest rates. Sterling index calculated by the Bank of England. Base average 1990 = 100. Index rebased 1/2/95. Bid, Offer and Mid-rates in both this and the Dollar Spot tables derived from THE WM/REUTERS CLOSING SPOT RATES. Some values are rounded by the F.T.

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

May 1		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	low	One month Rate	%PA	Three months Rate	%PA	One year Rate	%PA	J.P Morgan index
Europe													
Austria	(Sch)	10.7890	-0.0001	869 - 910	10.8200	10.7740	10.7635	2.2	10.7275	2.2	10.544	2.3	104.6
Belgium	(BFr)	31.5200	-0.005	000 - 400	31.6000	31.4600	31.466	2.1	31.35	2.2	30.81	2.3	106.4
Denmark	(DKr)	5.9110	-0.0015	095 - 125	5.9277	5.9029	5.9035	1.5	5.8865	1.7	5.8175	1.8	108.8
Finland	(FM)	4.8583	+0.0062	558 - 608	4.8704	4.8433	4.8518	1.6	4.8398	1.5	4.7343	1.3	83.0
France	(FFr)	5.1773	-	770 - 775	5.1895	5.1705	5.1704	1.6	5.1561	1.6	5.0353	1.7	108.8
Germany	(DM)	1.5336	-	333 - 338	1.5382	1.5312	1.5311	2.0	1.5253	2.2	1.4971	2.4	107.5
Greece	(Dr)	244.140	+0.23	890 - 390	244.720	243.860	245.815	-8.2	249.165	-8.2	263.14	-7.8	66.5
Ireland	(I£)	1.5523	+0.0002	515 - 530	1.5585	1.5475	1.5529	-0.4	1.5537	-0.4	1.5453	0.5	-
Italy	(L)	1565.95	+1.39	580 - 610	1569.60	1557.70	1572	-4.6	1583.55	-4.5	1624.45	-3.7	75.1
Luxembourg	(LFr)	31.5200	-0.005	000 - 400	31.6000	31.4500	31.457	3.1	31.3605	2.0	30.88	2.0	106.4
Netherlands	(Fl)	1.7149	-0.001	146 - 152	1.7256	1.7132	1.7116	2.3	1.7045	2.4	1.6727	2.5	105.4
Norway	(NKr)	6.5841	+0.0015	803 - 878	6.6003	6.5712	6.5812	0.5	6.5756	0.5	6.5391	0.7	97.6
Portugal	(Es)	157.150	-0.05	100 - 200	157.450	157.055	157.465	-2.4	158.055	-2.3	160.2	-1.9	95.0
Spain	(Pta)	127.445	+0.075	420 - 470	127.650	127.270	127.695	-2.4	128.125	-2.1	129.695	-1.7	81.3
Sweden	(SKr)	6.8423	+0.045	375 - 470	6.8475	6.7867	6.8553	-1.9	6.8708	-1.7	6.9128	-1.0	88.4
Switzerland	(SFr)	1.2485	+0.0038	481 - 488	1.2530	1.2431	1.245	3.4	1.2375	3.5	1.204	3.6	111.4
UK	(£)	1.4965	-0.0041	960 - 970	1.5057	1.4928	1.4957	0.6	1.4946	0.5	1.4905	0.4	83.4
Ecu	-	1.2250	-0.0016	245 - 255	1.2270	1.2220	1.2258	-0.7	1.2274	-0.6	1.2363	-0.9	-
SDR†	-	0.68960	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	0.9960	-	957 - 962	0.9999	0.9955	-	-	-	-	-	-	-
Brazil	(R$)	0.9922	-0.0001	920 - 923	0.9923	0.9920	-	-	-	-	-	-	-
Canada	(C$)	1.3623	+0.0008	620 - 626	1.3623	1.3610	1.3621	0.1	1.3624	0.0	1.3652	-0.2	83.8
Mexico	(New Peso)	7.4050	-0.0495	950 - 150	7.4150	7.3950	7.5685	-26.2	7.7515	-18.7	9.515	-28.5	-
USA	($)	-	-	-	-	-	-	-	-	-	-	-	97.1
Pacific/Middle East/Africa													
Australia	(A$)	1.2671	-0.0047	668 - 676	1.2680	1.2655	1.2691	-1.9	1.2728	-1.7	1.2913	-1.9	93.5
Hong Kong	(HK$)	7.7361	+0.0006	356 - 366	7.7370	7.7353	7.7368	-0.1	7.7386	-0.1	7.7656	-0.4	-
India	(Rs)	34.6500	-0.1	000 - 000	34.8000	34.4600	34.8	-5.2	35.105	-5.3	36.575	-5.6	-
Israel	(Shk)	3.1964	+0.0021	944 - 984	3.2124	3.1940	-	-	-	-	-	-	-
Japan	(Y)	105.115	+0.36	070 - 160	105.400	105.000	104.67	5.1	103.77	5.1	100.03	4.8	140.8
Malaysia	(M$)	2.4925	-0.0013	920 - 930	2.4940	2.4925	2.4934	-0.4	2.4995	-1.1	2.523	-1.2	-
New Zealand	(NZ$)	1.4590	+0.0005	584 - 596	1.4605	1.4577	1.4621	-2.5	1.4679	-2.4	1.4925	-2.3	-
Philippines	(Peso)	26.1650	+0.005	400 - 900	26.1900	26.1390	-	-	-	-	-	-	-
Saudi Arabia	(SR)	3.7502	-0.0001	500 - 503	3.7505	3.7500	3.7506	-0.1	3.7513	-0.1	3.7547	-0.1	-
Singapore	(S$)	1.4062	+0.0002	057 - 067	1.4075	1.4050	1.4026	3.0	1.3968	2.7	1.3712	2.5	-
South Africa	(R)	4.3300	+0.0075	250 - 350	4.3350	4.3250	4.3587	-8.0	4.4103	-7.4	4.6335	-7.0	-
South Korea	(Won)	778.250	-	200 - 300	-	-	-	-	-	-	-	-	-
Taiwan	(T$)	27.1710	+0.0005	690 - 730	27.1810	27.1680	27.191	-0.9	27.231	-0.9	-	-	-
Thailand	(Bt)	25.2700	+0.02	600 - 800	25.2850	25.2460	25.3687	-4.7	25.5725	-4.8	26.455	-4.7	-

† SDR rate per $ for Apr 30. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. Forward rates are not directly quoted to the market but are implied by current interest rates. UK, Ireland & ECU are quoted in US currency. J.P. Morgan nominal indices Apr 30: Base average 1990=100.

WORLD INTEREST RATES

MONEY RATES

May 1	Over night	One month	Three mths	Six mths	One year	Lomb. inter.	Dis. rate	Repo rate
Belgium	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.00	2.50	-
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.00	2.50	-
France	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.70	-	5.60
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.70	-	5.80
Germany	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.50	2.50	3.30
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.50	2.50	3.30
Ireland	5	[illegible]	[illegible]	[illegible]	[illegible]	-	-	6.25
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	6.25
Italy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	9.00	9.32
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	9.00	9.55
Netherlands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	3.00	3.30
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	3.00	3.30
Switzerland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.00	1.50	-
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.00	1.50	-
US	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	5.00	-
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	5.00	-
Japan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	0.50	-
week ago	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	0.50	-
■ $ LIBOR FT London								
Interbank Fixing	-	[illegible]	5½	[illegible]	[illegible]	-	-	-
week ago	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-
US Dollar CDs	-	5.12	5.12	5.26	5.62	-	-	-
week ago	-	5.12	5.15	5.24	5.52	-	-	-
ECU Linked Ds	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-
week ago	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-
SDR Linked Ds	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-
week ago	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-

$ LIBOR interbank fixing rates are offered rates for $10m quoted to the market by four reference banks at 11am each working day. The banks are: Bankers Trust, Bank of Tokyo, Barclays and National Westminster.
Mid rates are shown for the domestic Money Rates, US$ CDs, ECU & SDR Linked Deposits (Ds).

EURO CURRENCY INTEREST RATES

May 1	Short term	7 days notice	One month	Three months	Six months	One year
Belgian Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Danish Krone	[illegible] - 4	4 - [illegible]	[illegible]	[illegible]	[illegible]	4 - [illegible]
D-Mark	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dutch Guilder	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
French Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Portuguese Esc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spanish Peseta	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sterling	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Swiss Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2 - [illegible]
Can. Dollar	[illegible]	[illegible]	[illegible]	[illegible]	5 - [illegible]	[illegible]
US Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Italian Lira	[illegible]	[illegible]	9 - [illegible]	[illegible]	[illegible]	[illegible]
Yen	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1¼ - 1½
Asian $Sing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Short term rates are call for the US Dollar and Yen, others: two days' notice.

■ **THREE MONTH PIBOR FUTURES** (MATIF) Paris Interbank offered rate (FFr5m)(Apr 30)

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	96.12	96.13	+0.01	96.14	96.10	13,839	58,051
Sep	96.13	96.13	-	96.14	96.10	4,810	48,920
Dec	95.98	95.98	+0.01	95.99	95.96	3,533	27,827

■ **THREE MONTH EUROMARK FUTURES** (LIFFE)* DM1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	96.85	96.83	-0.02	96.85	96.81	15835	211504
Sep	96.85	96.87	+0.01	96.87	96.81	22056	234033
Dec	96.66	96.68	+0.01	96.69	96.63	11489	194657
Mar	96.35	96.36	-	96.37	96.32	8883	131197

■ **THREE MONTH EUROLIRA FUTURES** (LIFFE)* L1000m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	91.35	91.32	-	91.40	91.31	4937	51226
Sep	91.85	91.88	+0.03	91.90	91.85	2896	30849
Dec	92.10	92.06	-	92.11	92.05	1146	22507
Mar	92.01	92.01	-	92.04	92.01	73	8907

■ **THREE MONTH EURO SWISS FRANC FUTURES** (LIFFE) SFr1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	98.15	98.14	-0.01	98.15	98.12	2697	25039
Sep	98.12	98.11	-0.02	98.12	98.09	1390	18245
Dec	97.85	97.86	-0.02	97.86	97.83	203	11338
Mar	-	97.55	-0.02	-	-	0	4100

■ **THREE MONTH EUROYEN FUTURES** (LIFFE) Y100m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	99.10	99.11	-	99.11	99.10	26	na
Sep	98.75	98.77	-0.03	98.77	98.75	443	na
Dec	98.43	98.44	-0.04	98.44	98.43	2795	na

■ **THREE MONTH ECU FUTURES** (LIFFE) Ecu1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	95.82	95.81	-0.01	95.82	95.82	50	9249
Sep	95.85	95.84	-0.01	95.85	95.85	3	4846
Dec	95.69	95.68	-0.01	95.69	95.69	5	3307
Mar	-	95.42	-0.01	-	-	0	1964

* LIFFE futures also traded on APT

CROSS RATES AND DERIVATIVES

EXCHANGE CROSS RATES

May 1		BFr	DKr	FFr	DM	I£	L	Fl	NKr	Es	Pta	SKr	SFr	£	C$	$	Y	Ecu
Belgium	(BFr)	100	18.75	16.43	4.865	2.044	4967	5.440	20.89	498.6	404.3	21.71	3.960	2.120	4.323	3.172	333.5	2.591
Denmark	(DKr)	53.32	10	8.759	2.594	1.090	2649	2.901	11.14	265.9	215.6	11.58	2.112	1.130	2.305	1.691	177.8	1.381
France	(FFr)	60.88	11.42	10	2.962	1.244	3024	3.312	12.72	303.6	246.1	13.22	2.411	1.291	2.632	1.931	203.0	1.577
Germany	(DM)	20.55	3.854	3.376	1	0.420	1021	1.118	4.293	102.5	83.09	4.462	0.814	0.436	0.888	0.652	68.54	0.532
Ireland	(I£)	48.93	9.176	8.037	2.381	1	2430	2.662	10.22	244.0	197.8	10.62	1.938	1.037	2.115	1.552	163.2	1.268
Italy	(L)	2.013	0.378	0.331	0.098	0.041	100.	0.110	0.421	10.04	8.139	0.437	0.080	0.043	0.087	0.064	6.714	0.052
Netherlands	(Fl)	18.38	3.447	3.019	0.894	0.376	913.1	1	3.840	91.66	74.32	3.991	0.728	0.390	0.795	0.583	61.30	0.476
Norway	(NKr)	47.87	8.978	7.864	2.329	0.978	2378	2.604	10	238.7	193.5	10.39	1.896	1.015	2.069	1.518	159.6	1.240
Portugal	(Es)	20.06	3.761	3.294	0.976	0.410	996.2	1.091	4.189	100.	81.08	4.354	0.794	0.425	0.867	0.636	66.88	0.520
Spain	(Pta)	24.74	4.639	4.063	1.203	0.506	1229	1.346	5.167	123.3	100.	5.370	0.980	0.524	1.069	0.784	82.49	0.641
Sweden	(SKr)	46.06	8.639	7.566	2.241	0.941	2288	2.506	9.622	229.7	186.2	10	1.824	0.977	1.991	1.461	153.6	1.193
Switzerland	(SFr)	25.25	4.736	4.148	1.229	0.516	1254	1.374	5.275	125.9	102.1	5.482	1	0.535	1.092	0.801	84.21	0.654
UK	(£)	47.17	8.846	7.748	2.295	0.964	2343	2.566	9.853	235.2	190.7	10.24	1.868	1	2.039	1.496	157.3	1.222
Canada	(C$)	23.13	4.338	3.800	1.126	0.473	1149	1.258	4.832	115.4	93.53	5.022	0.916	0.490	1	0.734	77.15	0.599
US	($)	31.53	5.913	5.179	1.534	0.644	1566	1.715	6.586	157.2	127.5	6.845	1.249	0.668	1.363	1	105.1	0.817
Japan	(Y)	29.99	5.624	4.926	1.459	0.613	1490	1.631	6.264	149.5	121.2	6.510	1.188	0.636	1.296	0.951	100.	0.777
Ecu		38.60	7.239	6.340	1.878	0.789	1917	2.100	8.063	192.5	156.1	8.380	1.529	0.818	1.669	1.224	128.7	1

Danish Kroner, French Franc, Norwegian Kroner, and Swedish Kronor per 10; Belgian Franc, Yen, Escudo, Lira and Peseta per 100.

■ **D-MARK FUTURES** (IMM) DM 125,000 per DM

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	0.6548	0.6539	-0.0005	0.6549	0.6520	27,155	86,527
Sep	0.6574	0.6575	-0.0007	0.6577	0.6559	55	3,584
Dec	-	0.6624	-	-	-	4	589

■ **SWISS FRANC FUTURES** (IMM) SFr 125,000 per SFr

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	0.8080	0.8046	-0.0026	0.8081	0.8013	18,712	43,407
Sep	0.8120	0.8120	-0.0025	0.8123	0.8090	140	1,753
Dec	-	0.8200	-0.0021	-	0.8200	7	684

■ **JAPANESE YEN FUTURES** (IMM) Yen 12.5 per Yen 100

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	0.9577	0.9564	-0.0019	0.9579	0.9540	23,852	64,656
Sep	0.9675	0.9677	-0.0020	0.9677	0.9664	845	2,632
Dec	-	0.9810	-	-	-	293	1,105

■ **STERLING FUTURES** (IMM) £62,500 per £

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	1.5070	1.4950	-0.0118	1.5070	1.4948	14,839	60,898
Sep	1.4970	1.4944	-0.0110	1.4970	1.4900	76	217
Dec	-	1.4930	-0.0110	-	1.4900	1	34

UK INTEREST RATES

LONDON MONEY RATES

May 1	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	6¾ - 5	[illegible]	[illegible]	6⅛ - 6	[illegible]	[illegible]
Sterling CDs	-	-	6 - [illegible]	6 - [illegible]	[illegible]	[illegible]
Treasury Bills	-	-	[illegible]	[illegible]	-	-
Bank Bills	-	-	[illegible]	[illegible]	[illegible]	-
Local authority deps.	[illegible]	[illegible]	6 - 5⅞	6 - 5⅞	[illegible]	[illegible]
Discount Market deps	6⅛ - 6	6⅛ - 6	-	-	-	-

UK clearing bank base lending rate 6 per cent from March 8, 1996

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	2½	5½	5	5	4¼

Certs of Tax dep. under £100,000 is 2½pc. Deposits withdrawn for cash 1¼pc.
Ave. tender rate of discount on Apr 26, 5.7940pc. ECGD fixed rate Stlg. Export Finance. Make up day Apr 30, 1996. Agreed rate for period May 26, 1996 to Jun 25, 1996, Schemes II & III 7.33pc. Reference rate for period Mar 30, 1996 to Apr 30, 1996, Schemes IV & V 6.079pc. Finance House Base Rate 6.5pc from May 1, 1996

■ **THREE MONTH STERLING FUTURES** (LIFFE) £500,000 points of 100%

	Open	Sett price	Change	High	Low	Est vol	Open int.
Jun	94.02	94.03	+0.01	94.04	94.01	8280	61737
Sep	93.87	93.89	+0.02	93.90	93.85	10698	59444
Dec	93.54	93.56	+0.02	93.57	93.51	12672	58584
Mar	93.10	93.13	+0.02	93.14	93.07	6259	46303
Jun	92.71	92.73	+0.01	92.73	92.69	2364	37752

Also traded on APT. All Open interest figs. are for previous day.

■ **SHORT STERLING OPTIONS** (LIFFE) £500,000 points of 100%

Strike Price	CALLS Jun	Sep	Dec	PUTS Jun	Sep	Dec
9400	0.10	0.13	0.14	0.07	0.24	0.58
9425	0.02	0.05	0.06	0.24	0.41	0.77
9450	0.01	0.02	0.04	0.48	0.63	0.98

Est. vol. total, Calls 5690 Puts 2349. Previous day's open int., Calls 134714 Puts 118194

BASE LENDING RATES

	%		%		%
Adam & Company	6.00	Duncan Lawrie	6.00	Royal Bk of Scotland	6.00
Allied Trust Bank	6.00	Exeter Bank Limited	7.00	●Singer & Friedlander	6.00
AIB Bank	6.00	Financial & Gen Bank	7.00	●Smith & Williamson Secs.	6.00
●Henry Ansbacher	6.00	●Robert Fleming & Co	6.00	TSB	6.00
Bank of Baroda	6.00	Girobank	6.00	United Bank of Kuwait	6.00
Banco Bilbao Vizcaya	6.00	●Guinness Mahon	6.00	Unity Trust Bank Plc	6.00
Bank of Cyprus	6.00	Habib Bank AG Zurich	6.00	Western Trust	6.00
Bank of Ireland	6.00	●Hambros Bank	6.00	Whiteaway Laidlaw	6.00
Bank of India	6.00	Heritable & Gen Inv Bk	6.00	Yorkshire Bank	6.00
Bank of Scotland	6.00	●Hill Samuel	6.00		
Barclays Bank	6.00	C. Hoare & Co	6.00	● Members of London Investment Banking Association	
Brit Bk of Mid East	6.00	Hongkong & Shanghai	6.00	* In administration	
●Brown Shipley & Co Ltd	6.00	Julian Hodge Bank	6.00		
Citibank NA	6.00	●Leopold Joseph & Sons	6.00		
Clydesdale Bank	6.00	Lloyds Bank	6.00		
The Co-operative Bank	6.00	Meghraj Bank Ltd	6.00		
Coutts & Co	6.00	Midland Bank	6.00		
Credit Lyonnais	6.00	* Mount Credit Corp	6.25		
Cyprus Popular Bank	6.00	NatWestminster	6.00		
		●Rea Brothers	6.00		

EMS EUROPEAN CURRENCY UNIT RATES

May 1	Ecu cen. rates	Rate against Ecu	Change on day	% +/- from cen. rate	% spread v weakest	Div. ind.
Spain	162.493	158.856	+0.32	-2.36	3.54	16
Netherlands	2.15214	2.13737	+0.00059	-0.69	1.79	5
Belgium	39.3960	39.2705	+0.0416	-0.32	1.42	2
Austria	13.4383	13.4402	+0.0106	0.01	1.08	-0
Portugal	195.792	195.756	+0.224	-0.02	1.11	0
Germany	1.91007	1.91032	+0.00149	0.01	1.08	-0
France	6.40608	6.45084	+0.00557	0.70	0.39	-6
Denmark	7.28580	7.36552	+0.00605	1.09	0.00	-7
Ireland	0.792214	0.800537	-0.002218	1.05	0.04	-7
NON ERM MEMBERS						
Greece	292.867	304.030	+0.239	3.81	-2.62	-
Italy	2106.15	1952.75	-9.04	-7.28	9.04	-
UK	0.786652	0.828180	-0.002267	5.28	-3.98	-

Ecu central rates set by the European Commission. Currencies are in descending relative strength. Percentage changes are for Ecu; a positive change denotes a weak currency. Divergence shows the ratio between two spreads: the percentage difference between the actual market and Ecu central rates for a currency, and the maximum permitted percentage deviation of the currency's market rate from its Ecu central rate.
(17/9/92) Sterling and Italian Lira suspended from ERM. Adjustment calculated by the Financial Times.

■ **PHILADELPHIA SE £/$ OPTIONS** £31,250 (cents per pound)

Strike Price	CALLS May	Jun	Jul	PUTS May	Jun	Jul
1.480	2.51	2.79	3.11	0.04	0.35	0.72
1.490	1.58	2.11	2.51	0.11	0.62	1.05
1.500	0.78	1.48	1.90	0.21	0.89	1.45
1.510	0.26	0.99	1.41	0.69	1.50	1.97
1.520	0.02	0.62	1.02	1.46	2.12	2.52

Previous day's vol., Calls 2,580 Puts 3,711. Prev. day's open int., Calls 159,841 Puts 174,978

■ **THREE MONTH EURODOLLAR** (IMM) $1m points of 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	94.50	94.49	-0.02	94.51	94.48	58,756	374,752
Sep	94.28	94.27	-0.02	94.28	94.25	73,420	350,810
Dec	93.96	93.95	-0.02	93.98	93.92	168,504	334,807

■ **US TREASURY BILL FUTURES** (IMM) $1m per 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Jun	94.98	94.97	-0.01	94.97	94.96	616	9,898
Sep	94.75	94.75	-0.02	94.75	94.74	226	5,240
Dec	-	94.50	-0.02	-	94.50	7	876

All Open interest figs. are for previous day

■ **EUROMARK OPTIONS** (LIFFE) DM1m points of 100%

Strike Price	CALLS May	Jun	Jul	Sep	PUTS May	Jun	Jul	Sep
9675	0.09	0.11	0.18	0.21	0.01	0.03	0.06	0.09
9700	0.01	0.02	0.05	0.08	0.18	0.19	0.18	0.21
9725	0	0	0.01	0.02	0.42	0.42	0.39	0.40

Est. vol. total, Calls 13203 Puts 1495. Previous day's open int., Calls 344861 Puts 355652

■ **EURO SWISS FRANC OPTIONS** (LIFFE) SFr 1m points of 100%

Strike Price	CALLS Jun	Sep	Dec	PUTS Jun	Sep	Dec
9825	0.03	0.10	0.10	0.14	0.24	0.49
9850	0.02	0.04	0.04	0.38	0.43	0.68

Est. vol. total, Calls 0 Puts 0. Previous day's open int., Calls 5245 Puts 3071

■ **EUROLIRA OPTIONS** (LIFFE) L1000m points of 100%

Strike Price	CALLS Jun	Sep	Dec	PUTS Jun	Sep	Dec
9125	0.22	0.77	1.08	0.15	0.14	0.25
9150	0.11	0.59	0.88	0.29	0.21	0.32
9175	0.06	0.42	0.71	0.49	0.29	0.40

Est. vol. total, Calls 300 Puts 0. Previous day's open int., Calls 32197 Puts 18253

ALCOHOLIC BEVERAGES

BANKS, MERCHANT

BANKS, RETAIL

BREWERIES, PUBS & REST

BUILDING & CONSTRUCTION

BUILDING MATS. & MERCHANTS

CHEMICALS

DISTRIBUTORS

DIVERSIFIED INDUSTRIALS

ELECTRICITY

ELECTRONIC & ELECTRICAL EQPT

ELECTRONIC & ELECTRICAL EQPT - Cont.

ENGINEERING

ENGINEERING - Cont.

ENGINEERING, VEHICLES

EXTRACTIVE INDUSTRIES

EXTRACTIVE INDUSTRIES - Cont.

FOOD PRODUCERS

GAS DISTRIBUTION

HEALTH CARE

HEALTH CARE - Cont.

HOUSEHOLD GOODS

INSURANCE

INVESTMENT TRUSTS

INVESTMENT TRUSTS - Cont.

INV TRUSTS SPLIT CAPITAL

LONDON SHARE SERVICE

INV TRUSTS SPLIT CAPITAL - Cont.

LEISURE & HOTELS - Cont.

OTHER FINANCIAL - Cont.

PROPERTY - Cont.

SUPPORT SERVICES - Cont.

AIM - Cont.

PAPER, PACKAGING & PRINTING

TELECOMMUNICATIONS

AMERICANS

LIFE ASSURANCE

RETAILERS, FOOD

TEXTILES & APPAREL

MEDIA

RETAILERS, GENERAL

CANADIANS

PHARMACEUTICALS

TOBACCO

SOUTH AFRICANS

	Notes	Price	+ or –	52 week high	52 week low	Mkt Cap£m	Yld Gr's	P/E
Anglo Am Ind		£30½	—	£34½	£29½	2,698	2.8	Φ
Barlow	Φ	27⅛	+⅛	£1610	25⅞	1,549	1.7	Φ
Gold Flds Prop R		130xd	—	170	130	13.3	7.1	9.4
MK Props		75	—	96	75	3.61	13.1	–
SASOL	♥	688	+5	710	475	4,029	1.7	–
SA Brews		£19¾	+¼	£20½	£17½	5,724	1.8	30.0
Standard Bank	□	£24½	–⅛	£32¼	£20½	2,988	1.6	19.7
Tiger Oats		875	—	1278	850	1,316	1.9	Φ
Tongaat-Hulett	†	893	—	1247	685	845.3	1.9	19.5

OTHER INVESTMENT TRUSTS

TRANSPORT

PHARMACEUTICALS - Cont.

RETAILERS, GENERAL - Cont.

OIL EXPLORATION & PRODUCTION

INVESTMENT COMPANIES

PROPERTY

WATER

SUPPORT SERVICES

AIM

OIL, INTEGRATED

OTHER FINANCIAL

LEISURE & HOTELS

GUIDE TO LONDON SHARE SERVICE

Prices for the London Share Service delivered by FT Extel, a member of the Financial Times Group.

Company classifications are based on those used for the FT-SE Actuaries Share Indices.

Closing mid-prices are shown in pence unless otherwise stated. Highs and lows are based on intra-day mid-prices over a rolling 52 week period.

Where stocks are denominated in currencies other than sterling, this is indicated after the name.

Symbols referring to dividend status appear in the notes column daily as a guide to yields and P/E ratios. Dividends and Dividend covers are published on Monday.

Market capitalisation shown is calculated separately for each line of stock quoted.

Earnings used in calculations are based on IIMR 'Headline Earnings' formula.

Price/earnings ratios are based on latest annual reports and accounts and, where possible, are updated on interim figures.

Yields are based on mid-prices, are gross, adjusted for a dividend tax credit of 20 per cent and allow for value of declared distribution and rights.

Estimated Net Asset Values (NAVs) are shown for Investment Trusts, in pence per share, along with the percentage discounts (Dis) or premiums (Pm -) to the current closing share price. The NAV basis assumes prior charges at par value, convertibles converted and warrants exercised if dilution occurs.

- □ Indicates the most actively traded stocks. This includes UK stocks where transactions and prices are published continuously through the Stock Exchange Automated Quotation system (SEAQ) and non-UK stocks through the SEAQ International system.
- • Highs and lows marked thus have been adjusted to allow for capital changes
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred
- Φ Figures or report awaited
- ♥ Rule 2.1(a)(iv) Overseas incorporated companies listed on an approved exchange.
- ♣ Free annual/interim report available, see details below
- ✲ USM; not listed on Stock Exchange and company not subjected to same degree of regulation as listed securities.
- ‡‡ Rule 4.2(a) Irish incorporated non-listed companies.
- # Price at time of suspension
- ¶ Indicated dividend yield after pending scrip and/or rights issue.
- ♦ Merger bid or reorganisation in progress
- § Forecast dividend yield; p/e based on earnings updated by latest interim statement.
- ♠ Unregulated collective investment scheme.

a Yield based on annualised dividend
b Figures based on prospectus or other official estimates.
g Assumed dividend yield after rights issue.
h Assumed dividend yield after scrip issue.
n Rights issue pending
q Earnings based on preliminary figures.
s Dividend yield includes a special payment.
t Indicated dividend yield, p/e ratio based on latest annual earnings.
u Forecast, or estimated annualised dividend yield, p/e based on previous year's earnings
v P/e ratios are calculated under new ACT guidelines.
z Dividend yield includes a special payment
F Yield based on prospectus or other official estimates for 1996-97.
G Assumed yield after pending scrip and/or rights issue.
H Yield based on prospectus or other official estimates for 1995.
K Yield based on prospectus or other official estimates for 1996
L Estimated annualised yield, p/e based on latest annual earnings.
M Yield based on prospectus or other official estimates for 1995-96.
R Forecast annualise yield, p/e based on prospectus or other official estimates.
W Pro forma figures.
Z Dividend yield to date.

Abbreviations:
xd ex dividend;
xc ex scrip issue;
xr ex rights;
xa ex all;
xf ex capital distribution.

This service is available to companies whose shares are regularly traded in the United Kingdom for a fee of £1350 a year for each security shown, subject to the Editor's discretion

♣ FT Free Annual Reports Service

You can obtain the current annual/interim report of any company annotated with ♣ . Please quote the code FT6216. Ring 0181 770 0770 (open 24 hours including weekends) or Fax 0181 770 3822. Reports will be sent the next working day, subject to availability.

Both Annual Reports and FT Company Focus are available from the above number.

FT Company Focus

Comprehensive 10-14 page report available on this company, containing key FT stories from the last year, latest survey of City profit forecasts and investment recommendations, 5 year financial and share price performance review, balance sheet and profit and loss data, plus recent Stock Exchange announcements for £6.45.

To order, call 0121 200 4678.

Reports published by ShareFinder Ltd.

FT Cityline

Up-to-the-second share prices are available by telephone from the FT Cityline service. See Monday's share price pages for details.

An international service is available for callers outside the UK, annual subscription £250 stg.

Call 0171 873 4378 for more information on FT Cityline.

For readers phoning from outside UK, please dial +44 in place of the first 0.

The share prices printed on these pages are also available on the internet at www.FT.com.

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OFFSHORE AND OVERSEAS

BERMUDA (SIB RECOGNISED)

Fidelity Currency Funds Ltd

Jupiter Tyndall (Bermuda) Ltd

Orion Fund Limited

BERMUDA (REGULATED)(**)

Bermuda Intl Invest Mgmt Ltd

Butterfield Management Co Ltd

GUERNSEY (SIB RECOGNISED)

AIB Investment Managers (Guernsey) Ltd

Adams & Neville Fd Mngmt (Guernsey) Ltd

Equitable International Fund Managers Ltd

Guinness Flight Fd Mgrs (Guernsey) Ltd

Hambros Fd Mgrs (CI) Ltd

Lazard Freres Asset Management (CI) Ltd

Lazard Fund Mgrs (Channel Islands) Ltd

Lloyds Intl Money Market Fund Ltd

M & G (Guernsey) Ltd

Prudential Fund Managers (Guernsey) Ltd

Rothschild Asset Management (CI) Ltd

Royal Bk of Canada O/S Fd Mgrs Ltd

Royal Bk of Canada O/S Fd Mgrs Ltd - Contd.

Sarasin Funds Mngmt (Guernsey) Ltd

GUERNSEY (REGULATED)(**)

ANZ Mngmt Co (Guernsey) Ltd

Arab Bank Fund Managers (Guernsey) Ltd

CIBC Fund Managers (Guernsey) Ltd

Lazard Fund Managers (CI) Ltd

Lazard Freres Asset Management (CI) Ltd

Merrill Lynch Guernsey

Royal Bank of Canada Intl Money Market Fd

Schroder Investment Management (Guernsey) Ltd

UBS Asset Management (Guernsey) Ltd

U.S. Advisors (Guernsey) Limited

IRELAND (SIB RECOGNISED)

AIB Fund Managers Ltd

Bank of Ireland

Guinness Flight Fund Managers (Ireland) Ltd

The Fiduciary Trust Global Fund

Global Asset Management

Guinness Flight Select Funds Plc

IRELAND (REGULATED)(**)

AIB Fund Management Ltd

Bank of Ireland Unit Managers Ltd

Berkeley Korea Fund Plc

Capital Vision Fund Plc

Citizens Investment Trust Management Company

Daiwa Europe Fund Mgrs Ireland Ltd

LGT Asset Management Ltd

Morgan Grenfell Investment Funds Ltd

Murray Johnstone (Dublin) Ltd

Old Mutual International Fd Mgrs Ltd

Prolific Interational Fund Plc

Scottish Value Management (Ireland) Ltd

Swiss Life Investment Fund

Daiwa Europe Fund Mgrs Ireland Ltd - Contd.

Dragon Korea Fund Plc

Dynamic Pacific Portfolio Fund Plc

Emerging Dynamic Fund Plc

Emerging Market Growth Fund Plc

Frank Russell Investments (Ireland) Ltd

Gartmore Korea Fund Plc

Global Resources Stock Fund

Hambros Fund Managers (Ireland) Ltd

Kleinwort Benson Bond Arbitrage Fund Plc

Kleinwort Benson Derivative Products Fd Plc

Korea Balanced Return Fund

Korea Capital Growth Fund

Korea Golden Dynasty Fund Plc

Korea Open Fund

Korea Sprint Fund Plc

Korea Strategic Growth Fund

Korean Emerging Growth Fund Plc

Korean Preferred Share Fund

LGT Asset Management Ltd

Morgan Grenfell Fixed Income Funds Plc

National Mutual Funds Management

The Northern Trust Global Cash Funds Plc

Old Mutual International (Ireland) Ltd

Orient Balanced Fund

Pacific 21st Century Fund

Pacific Growth Fund Ltd

Paine Webber Offshore Funds Plc

Paribas Asset Management (Ireland) Ltd

J. Rothschild International Assce plc

SBC CAPM Strategies Plc

Yellow Sea Investment Company PLC

Yuki Korea Fund

Yuki Taiwan Fund

ISLE OF MAN (SIB RECOGNISED)

AXA Equity & Law Intl Fund Mngrs

Allied Dunbar Intl Fund Mgrs (IOM) Ltd

Bank of Ireland Asset Mngmt (IOM) Ltd

Mercury Fund Managers IoM Ltd

Quilter Intl Mngt (IoM) Ltd

Sun Life Management (IoM) Ltd

ISLE OF MAN (REGULATED)(**)

AXA Equity & Law Intl Fund Mgrs

Bank of Ireland Asset Management (IOM) Ltd

City Financial Admin (IoM) Ltd

INVESCO International Limited

JERSEY (SIB RECOGNISED)

AIB Fund Managers (CI) Ltd

Barclays Funds

Coutts & Co (Jersey) Fund Managers Ltd

Lloyds Bank (CI) U/T Mgrs

Midland Bank Fund Managers (Jersey) Ltd

Newton Fund Mgrs (CI) Ltd

Royal Bank of Scotland Fd Mgrs (Jersey) Ltd

Save & Prosper International

TSB Fund Managers (CI) Ltd

JERSEY (REGULATED)(**)

Bank of Scotland Fund Managers (Jersey) Ltd

Fleming Group

Guinness Flight Fd Mgrs (Jersey) Ltd

Jupiter Tyndall (Jersey) Ltd

Lloyds Private Banking (CI) Ltd

Lombard Odier (Jersey) Ltd

Mercury Asset Mngt Channel Islands Ltd

Perpetual UT Mngrs (Jersey) Ltd

Royal Bk of Scotland Fd Mgrs (Jersey) Ltd

Schroder Mngt Services (Jersey) Ltd

Warburg Asset Management Jersey Ltd

LUXEMBOURG (SIB RECOGNISED)

ABN AMRO Funds

BAII Asset Management Ltd

Fidelity Funds

Fidelity Funds - Contd.

Fleming Group

Foreign & Colonial Emerging Markets Ltd

Foreign & Colonial Portfolios Fd Sicav

Jupiter Tyndall Global Fund

Lloyds Bank Lux

Mercury Asset Management S.A.

Mercury Global Select Fund

Morgan Grenfell Investment Funds Ltd

Parvest

Prolific International Fund

Save & Prosper International

Schroder Asset Mngt (Luxembourg) S.A.

TSB Fund Managers

S-E-Banken Luxembourg SA - Contd.

Scottish Equitable Intl Fund SICAV

Sun Life Global Fund SICAV

Thornton Management

Threadneedle

LUXEMBOURG (REGULATED)(**)

Aetna International Umbrella Fund

Alliance Capital

Banque Scandinave En Suisse

Capital Gearing Trust

Credit Suisse

Invesco Intl Ltd

Oldenburg

Cox & Kings

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

	Selling Price	Buying Price	+ or -	Yield Gross
Credis Investment Funds - Contd.				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Credit Commercial de France				
[illegible]	[illegible]			
Daiwa Japan Gem Fund				
Daiwa Japan Gem	$11.30	11.47		
Daiwa Japan Small Equity Fd (u)				
Daiwa Japan Small Eq	$13.57			
Dicam Worldwide Investment Fund				
NAV	$30.10			
The Dragon Fund Sicav				
NAV Apr 30	$96.04			
Emerging Markets Brewery Fund SICAV				
NAV	$9.30			
Europe Value Fund (u)				
NAV	$18.76			
EurOptec (u)				
European Protection	Ecu77.35			
Nikko Bank (Luxembourg) S.A.				
[illegible]	[illegible]			
Nikko Capital Management				
[illegible]	Y100 3372			
Nomura Asian Infrastructure Fd SICAV				
NAV	$27.22			
Pacific Basin Growth Fund				
[illegible]	[illegible]			
Pan-Holding SA				
Pan Holding NAV Apr 24	[illegible]			
Pictet Group				
Asia Growth	$107.31			
[illegible]	[illegible]			
REIG Global Funds				
[illegible]	[illegible]			
River & Mercantile Latin American SICAV				
Latin American NAV	$10.16			
Rosenberg Global Mngt Co SA (u)				
[illegible]	$12.21			
Rosenberg Management SA (u)				
[illegible]	[illegible]			
Rosenberg US Japan Mngmt Co SA (u)				
[illegible]	$12.21			
B.d.G. Edmond de Rothschild (Luxembourg)				
[illegible]	[illegible]			

OTHER OFFSHORE FUNDS

[illegible]

OFFSHORE INSURANCES

[illegible]

MANAGED FUNDS NOTES

[illegible]

LONDON STOCK EXCHANGE

MARKET REPORT

Struggling Footsie takes another look at 3,800

By Steve Thompson, UK Stock Market Editor

The closure of much of continental Europe for the May Day holiday, plus the impending UK local elections and US non-farm payroll report for April, made for a quiet trading session in UK equities.

But it was the lack of any of the much heralded takeover activity that continued to take its toll on the market.

The FT-SE 100 index took a couple of hard looks at the 3,800 level, but always rallied well and eventually finished the day a net 11.9 off at 3,806.0.

Second-line stocks, which have left the leaders well behind since the start of the year, lost more of their shine, with the FT-SE Mid 250 index posting its third consecutive retreat and ending the day 11.7 down at 4,540.1.

A handful of profits warnings, notably from Courtaulds Textiles and General Accident, the composite insurer, gnawed away at the market's confidence, as did some more downbeat economic news, in the form of the Purchasing Manager Index for April. The index fell for the third month running.

The news from across the Atlantic, where the National Association of Purchasing Management published their survey for April, initially depressed Wall Street, where the Dow Jones Industrial Average came under pressure. But sentiment there quickly picked up and the Dow was showing a 20-point-plus gain an hour after London closed for business.

Commenting on the day's events in the market, the head trader at one European broking house said sentiment in London remained fragile. "The market expects the Conservatives to get a tanning in the elections and is looking for a further big rise in employment numbers in the US, but it is a question of how much in both cases."

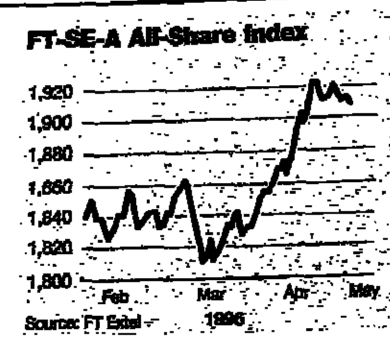
On the elections he said the market would probably cope quite happily with losses of up to 800 local council seats, but that many more than that would trigger renewed and damaging stories about Mr Major's leadership into the general election.

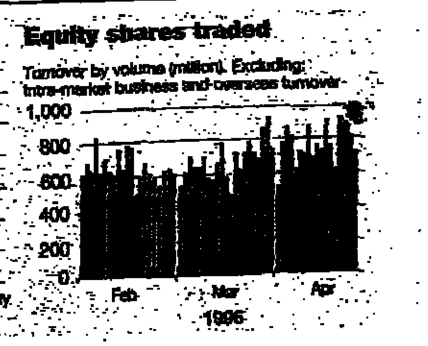
Turnover in equities at 6pm reached 790.4m shares, a figure that surprised dealers but which was heavily weighted to non-FT-SE 100 stocks that accounted for more than 60 per cent of the day's business. And there was plenty of activity in the market's "penny stocks".

Around the individual sectors the composite insurers provided plenty of interest, with General Accident *hard hit by the warning that profits* would be badly affected by the weather which hit the company's main markets, *the UK and North America*, over the winter.

The day's biggest casualty was Courtaulds Textiles, which plummeted more than 10 per cent in the wake of the shock profits warning.

The utilities areas, on which many speculators had pinned high hopes of more takeover bids developing this week, were given a mauling. Some market observers maintained, however, that fresh takeover action is imminent.





Indices and ratios

FT-SE 100	3806.0	-11.9	FT Ordinary index	2631.3	-7.3
FT-SE Mid 250	4540.1	-11.7	FT-SE-A Non Fins p/e	17.53	17.52
FT-SE-A 350	1925.9	-5.8	FT-SE 100 Fut Jun	3817.00	-4.00
FT-SE-A All-Share	1909.39	-5.22	10 yr Gilt yield	8.03	7.99
FT-SE-A All-Share yield	3.70	3.69	Long gilt/equity yld ratio:	2.25	2.25

Best performing sectors

1 Pharmaceuticals .... +0.9
2 Tobacco .... +0.8
3 Health Care .... +0.6
4 Other Financial .... +0.6
5 Insurance .... +0.4

Worst performing sectors

1 Textiles & Apparel .... -2.4
2 Electricity .... -1.3
3 Utilities .... -1.0
4 Water .... -0.9
5 Building & Construction .... -0.9

Grid mystery deepens

The mystery over Hanson's sale of 210m shares in National Grid deepened yesterday as a buyer failed to materialise.

Early speculation suggested that HSBC James Capel, which took on the 12.5 per cent stake at 192.5p a share in the form of a bought deal, had a buyer lined up but lost it at the last moment.

However, an announcement late on that Capel had hedged *its risk with a subsidiary of* Olayan Group, an Athens-based investment group, sparked a rumour that Hanson had not rid itself of the shares at all.

Dealers suggested that the international conglomerate may have sold the stock with an option to repurchase. This would enable it to raise £405m in order to reduce its debt. And it would have allowed Hanson to benefit from any bid-related buying in the future.

Flesh was added to the bare bones of the rumour by a link between Olayan and Hanson. Mr Niven Duncan, a non-executive director of Olayan, was until September last year a director of Eastern Group, the regional electricity company which Hanson took over. However, Eastern said the link was purely coincidental and Hanson said it had no option to repurchase the stock.

Late yesterday, National Grid said Capel held 12.2 per cent of Grid shares, suggesting to some that it might have taken and sold 0.3 per cent of the company as commission *for the deal. National Grid* shares ended the day 6½ lower on turnover of 6.5m, while Hanson hardened to 197½p.

Builders retreat

Kleinwort Benson turned less positive on housebuilding shares, sparking a minor shakeout for the sub-sector.

Housebuilders have had a strong run this year, with Barratt outpacing the market as a whole by 14 per cent over the past month and Beazer notching up 10 per cent relative growth. Kleinwort moved from overweight to neutral and provoked clear profit-taking.

Both Barratt and Beazer retreated more than 2 per cent. The former came off 6½ to 283p and Beazer ended 5 lower at 204p in 4.4m traded. Wilson Bowden shed 8 to 455p.

Courtaulds hit

Hard pressed textile analysts were left shell-shocked by the latest announcement from Courtaulds Textiles.

Just when they were beginning to think that the sheen might be about to return to the sector after a period of savage downgrades and heavy destocking, Courtaulds issued a profits warning. The company said its losses in its US operations would drag down group profits in the first half.

Analysts expect profit estimates for the current year to be cut to between £40m and £41m from £47m previously.

Courtaulds Textiles shares tumbled 45 to 373p, while Coats Viyella relinquished 7 at 185p.

Rank ahead

Shares in Rank Organisation *moved against the poor market* trend, adding another 6½ at 539½p on brisk buying following Tuesday's lunch with a number of influential brokers, the first of three this week hosted by the group's new chief executive.

One broker who attended the meeting said: "The tone was upbeat and positive, though it has to be said that we shall have to wait until the interim figures in August to get the full picture."

Volume yesterday rose to 6.2m shares, with Henderson Crosthwaite said to have accounted for a large slice of the day's trading.

The market was bracing itself for a poor set of interim figures today from food retailing group Kwik Save. Nervous trading left the shares trailing 5 at 468p. Dealers said they expect profits to fall by between 20 per cent and 27 per cent to about £45m, and one *analyst added: "Let us just say* few people expect the company results to surprise on the upside."

The general feeling in the market remains that Kwik Save has continued to lose market share to the superstores and that margins at the group remain under pressure. The food retailer is expected to report a decline in like-for-like sales. Talk in the market also suggested that the company is experiencing difficulties in the distribution of its fresh products.

Transport leader P&O outmanoeuvred the market trend, hardening 3 to 535p on hopes for improved cross-Channel ferry margins should the group manage to negotiate a merger with Swedish rival Stena.

Between them P&O and Stena operate nine of the dozen short-haul Channel ferries. According to one London analyst, a merger could see combined capacity go down by between two or three ferries.

Glaxo Wellcome continued its recovery with a 12 to 818p as a recent product approval gave some counter-balance to worries over Zantac, the company's key anti-ulcer product.

SmithKline Beecham ended 13 higher at 717½p in response to an upbeat presentation to analysts in Belgium about its vaccines business and optimism that the US Food and Drug Administration would this week approve Kredex, its heart drug.

National Westminster Bank *rose 7 to 619½p as some brokers* reacted to the cost savings which should be generated by the bank's announcement that it will reduce its branch network by 15 per cent. ABN Amro Hoare Govett moved its stance on the stock to hold from overvalued and apparently set a 650p target price.

Kingfisher dropped 10 to 585p after a marketmaker was left holding a large line of stock and other marketmakers marked the price down.

W.H. Smith firmed 5 to 500p with renewed interest from buyers anticipating the group's strategic review, due this month. One analyst speculated on the possibility of a rights issue.

News of slowing demand and a big share placing left Eurodis Electron trailing by more than 17 per cent.

The announcement that Swiss utility Elektrowatt was to place its 40 per cent shareholding in Eurodis with institutions dashed market hopes for a bid for the electronic components supplier. The shares came off 49 to 233p.

MMT Computing jumped 86 to 458p following a strong interim profits statement.

In the drinks sector, Allied Domecq gave up 12½ to 501p following the announcement that the group had lost the agency rights for Lanson champagne, a high profile brand. One analyst said that while Allied was playing the loss down, the market adopted a much more bearish stance.

Water stocks dipped on drought worries and unconfirmed talk that SBC Warburg had placed 2.5m shares in Yorkshire Water at 660p a share for one institution keen to lighten its load. Yorkshire fell 15 to 668p.

In the electricity sector, Midlands fell 10 to 380p in spite of late whispers that a US buyer was preparing to pounce following the government's veto of the bid by PowerGen.

MARKET REPORTERS:
Peter John, Joel Kibazo, Jeffrey Brown, Lisa Wood.

FINANCIAL TIMES EQUITY INDICES

	May 1	Apr 30	Apr 29	Apr 26	Apr 25	Yr ago	*High	*Low
Ordinary Share	2631.3	2638.6	2635.1	2662.3	2654.4	2482.9	2665.2	2596.7
Ord. div. yield	3.92	3.91	3.91	3.86	3.88	4.25	4.06	3.76
P/E ratio net	15.57	16.71	16.70	16.84	16.78	16.51	17.25	15.96
P/E ratio nil	15.44	15.49	15.47	15.61	15.54	15.30	17.08	15.75

Ordinary Share index since compilation: high 2685.2 19/04/96; low 49.4 26/06/40. Base Date: 1/7/35.

Ordinary Share hourly changes

Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High	Low
2639.0	2633.6	2633.7	2634.9	2631.8	2631.3	2633.0	2632.7	2630.9	2630.9	2628.2

	May 1	Apr 30	Apr 29	Apr 26	Apr 25	Yr ago
SEAQ bargains	31,202	31,651	34,018	33,337	34,026	26,021
Equity turnover (£m)†	-	2224.5	1598.9	1950.5	2104.2	1501.4
Equity bargains†	-	40,146	41,421	38,651	40,514	37,691
Shares traded (mil)†	-	1010.2	727.7	802.4	922.9	634.4

†Excluding intra-market business and overseas turnover.

	May 1	Apr 30	Apr 29	Apr 26	Apr 25	Yr ago	*High	*Low
FT-SE AIM	1065.00	1065.10	1065.30	1055.90	1046.20	-	1066.00	965.68

*For 1996.

London market data

Rises and falls*		52 Week highs and lows		LIFFE Equity options	
Total Rises	684	Total Highs	231	Total contracts	17,271
Total Falls	604	Total Lows	13	Calls	6,119
Same	1,474			Puts	11,152

May 1 *Data based on Equity shares listed on the London Share Service.

FUTURES AND OPTIONS

■ FT-SE 100 INDEX FUTURES (LIFFE) £25 per full index point (APT)

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	3821.0	3817.0	-4.0	3823.0	3806.0	6051	59550
Sep	3834.0	3832.0	-4.0	3834.0	3828.0	210	3441
Dec	3857.0	3861.0	-4.0	3859.0	3857.0	210	128

■ FT-SE MID 250 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Jun	-	4555.0	-15.0	-	-	0	4471

■ FT-SE 100 INDEX OPTION (LIFFE) (*3806) £10 per full index point

	3650 C	3650 P	3700 C	3700 P	3750 C	3750 P	3800 C	3800 P	3850 C	3850 P	3900 C	3900 P	3950 C	3950 P	4000 C	4000 P
May	188	4	120	6½	78½	13½	40	27	17	55	5½	94½	2	143½	1	193½
Jun	182½	16½	142½	26	104	38½	72½	57	48½	82½	28	114½	15	153	7½	198
Jul	203	31	165½	43	139½	57½	99½	76½	73½	101½	50½	129½	34½	165	21½	204½
Aug	218	42½	189	54	147	71	115½	90½	89½	116	65½	142	48	175½	31½	[illegible]
Dec†			251½	101½			190½	139½			143½	191			101½	[illegible]

Calls 1,117 Puts 2,330

■ EURO STYLE FT-SE 100 INDEX OPTION (LIFFE) £10 per full index point

	3625 C	3625 P	3675 C	3675 P	3725 C	3725 P	3775 C	3775 P	3825 C	3825 P	3875 C	3875 P	3925 C	3925 P	3975 C	3975 P
May	190	2½	142½	5	96½	9	56½	19	27	39	10½	72	3½	115	1	162½
Jun	205	14½	161	20½	121	30	87	45½	59½	67½	38½	96	24	131	13	170
Jul	219	22½	188½	32½	145	46	113	63½	85	85	62½	111½	44	143	39	178½
Sep	215½	49½			181½	77			124	117½			81	172		
Dec†	305½	78½			240½	109½			161	146½			130½	192½		

Calls 567 Puts 2,822 * Underlying index value. Premiums shown are based on settlement prices.
† Long dated expiry months.

LONDON RECENT ISSUES: EQUITIES

Issue price p	Amt paid up	Mkt. cap (£m.)	1996 High	1996 Low	Stock	Close price p	+/-	Net div.	Div. cov.	Grs yld	P/E net
-	F.P.	23.4	138	128	†Active Imaging	128		-	-	-	-
-	F.P.	15.0	1050	975	Cairngorm Units	1050		-	-	-	-
-	F.P.	0.71	250	25	Cairngorm Wts	250		-	-	-	-
100	F.P.	9.50	95	95	Capital Co's VCT	95		-	-	-	-
85	F.P.	13.4	96	83	Cardcast	83		W0.5	8.2	0.8	18.0
270	F.P.	37.5	365	305	†Dicom	365	+15	-	-	-	-
100	F.P.	14.3	137	95	†Easynet	100		-	-	-	-
235	F.P.	98.0	340	345	FI Group	330	-7	RN4.1	1.7	1.6	42.7
-	F.P.	7.84	39	39	†FNR	39		-	-	-	-
270-	F.P.	175.4	340	316	Harvey Nichols	319	-6	b4.2	2.5	1.6	30.3
100	F.P.	27.4	97½	95	Hill Smt UK Emg Co	97		-	-	-	-
278	F.P.	462.8	332	278	Mill & Copthorne	320	-1	4.7	-	1.8	-
-	F.P.	1.35	20	16½	Pacific Hrzn Wrt	16½	-½	-	-	-	-
175	F.P.	55.6	184	173	Phytopharm	180		-	-	-	-
-	F.P.	7.07	22	20½	Perp Inc Wrnts	20½		-	-	-	-
-	F.P.	3.93	76	63	†Romtec	76		-	-	-	-
-	F.P.	7.64	4	3½	†Sira Bus Serv	4	+¼	-	-	-	-
-	F.P.	0.29	1½	1½	†Sira Bus Svs Wts	1½		-	-	-	-
-	F.P.	5.50	78	75	†Stentor	78		-	-	-	-
-	F.P.	16.7	530	503	Taverners Tst Ut	528		-	-	-	-
-	F.P.	1.82	26½	10¼	Templeton CSE	26		-	-	-	-
-	F.P.	38.8	185	180	†Tradepoint Fincl	185		-	-	-	-
45	F.P.	13.4	57	52	†Waterfall	52	-4	-	-	-	-

† Alternative Investment Market. For a full explanation of all other symbols please refer to The London Share Service notes.

FT GOLD MINES INDEX

	Apr 30	% chg on day	Apr 29	Year ago	Gross div yield %	P/E ratio	52 week High	52 week Low
Gold Mines Index (36)	2326.67	+1.4	2295.69	1929.38	1.36	-	2539.73	1722.83
■ Regional Indices								
Africa (13)	3136.76	+1.6	3086.00	2687.39	2.49	37.84	3553.86	2272.74
Australasia (5)	2784.48	+0.8	2761.56	2391.79	2.31	30.12	2827.34	2098.51
North America (12)	2032.02	+1.3	2005.06	1644.89	0.67	65.83	2188.39	1488.94

Copyright, The Financial Times Limited 1996. "FT Gold Mines Index" is a trademark of The Financial Times Limited. Figures in brackets show number of companies. Basis US Dollars. Base Values: 1000.00 31/12/92. † Partial. CONSTITUENT CHANGE WITH EFFECT 3/5/96: Addition: Sons of Gwalia (Australasia). Latest prices were unavailable for this edition.

FT - SE Actuaries Share Indices — The UK Series

	May 1	Day's chge%	Apr 30	Apr 29	Apr 26	Year ago	Div. yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
FT-SE 100	3806.0	-0.3	3817.9	3809.2	3832.8	3282.6	3.91	2.14	14.85	65.13	1547.93
FT-SE Mid 250	4540.1	-0.3	4551.8	4553.8	4588.6	3548.7	3.28	1.75	21.75	75.88	1816.76
FT-SE Mid 250 ex Inv Trusts	4577.6	-0.3	4590.4	4592.3	4607.4	3554.7	3.38	1.80	20.52	80.68	1834.74
FT-SE-A 350	1925.9	-0.3	1931.7	1928.5	1939.2	1618.0	3.77	2.06	16.09	32.80	1601.79
FT-SE-A 350 Higher Yield	1851.3	-0.2	1855.3	1851.3	1860.9	1631.7	5.01	1.90	13.12	39.65	1288.26
FT-SE-A 350 Lower Yield	2008.1	-0.4	2015.6	2013.2	2024.9	1604.2	2.63	2.34	20.27	26.00	1385.10
FT-SE SmallCap	2231.70	-	2230.91	2227.05	2226.35	1790.53	2.89	1.80	23.95	22.72	1823.90
FT-SE SmallCap ex Inv Trusts	2223.94	-	2223.43	2218.94	2217.87	1768.24	3.08	1.89	21.42	23.64	1828.29
FT-SE-A ALL-SHARE	1909.39	-0.3	1914.61	1911.39	1921.09	1598.05	3.70	2.05	16.52	31.46	1612.74

■ FT-SE Actuaries All-Share

	May 1	Day's chge%	Apr 30	Apr 29	Apr 26	Year ago	Div. yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
10 MINERAL EXTRACTION(24)	3513.34	-0.6	3533.91	3523.16	3513.62	2854.81	3.71	1.78	18.94	68.56	1508.22
12 Extractive Industries(6)	4670.13	+0.1	4665.31	4672.80	4668.85	3710.66	3.46	2.38	15.34	109.19	1374.27
15 Oil, Integrated(3)	3514.18	-0.7	3539.31	3522.33	3509.49	2859.43	3.94	1.68	18.87	65.59	1545.61
16 Oil Exploration & Prod(15)	2491.67	-0.7	2509.67	2520.65	2526.73	2101.11	2.10	1.58	37.54	32.05	1498.95
20 GEN INDUSTRIALS(276)	2158.62	-0.4	2166.65	2165.33	2180.23	1903.77	3.93	1.90	16.79	31.48	1178.63
21 Building & Construction(34)	1250.34	-0.9	1261.62	1263.59	1284.36	967.37	3.29	1.79	21.23	16.84	1045.39
22 Building Matls & Merchs(29)	2000.24	-0.4	2008.50	2014.67	2035.11	1747.10	3.80	1.78	18.70	29.59	1008.26
23 Chemicals(25)	2569.87	-	2568.94	2575.36	2587.49	2314.57	3.85	1.94	16.76	37.65	1214.65
24 Diversified Industrials(19)	1809.54	-0.3	1815.27	1814.30	1834.73	1845.23	5.70	1.68	13.04	41.60	1012.73
25 Electronic & Elect Equip(36)	2433.89	-0.3	2441.95	2418.79	2425.74	1984.11	2.97	1.70	24.72	13.04	1255.53
26 Engineering(71)	2493.04	-0.3	2501.70	2498.79	2510.62	1902.82	3.08	2.46	16.36	27.43	1509.44
27 Engineering, Vehicles(13)	3018.06	-0.5	3033.84	3040.80	3084.93	2285.31	3.53	1.92	18.45	48.83	1564.89
28 Paper, Pckg & Printing(28)	2790.93	-0.1	2795.12	2798.68	2813.38	2883.45	3.67	2.02	16.86	39.74	1161.56
29 Textiles & Apparel(19)	1445.93	-2.4	1481.68	1480.11	1488.61	1603.39	4.88	1.61	15.89	27.38	883.23
30 CONSUMER GOODS(90)	3561.37	+0.3	3551.39	3521.00	3532.21	3074.11	3.93	1.85	17.19	70.48	1318.69
32 Alcoholic Beverages(9)	2850.53	-0.4	2862.59	2862.92	2894.89	2780.43	4.85	1.63	17.61	57.85	1029.59
33 Food Producers(23)	2497.26	-0.7	2514.44	2509.42	2530.08	2455.04	4.14	1.82	16.54	55.04	1132.00
34 Household Goods(15)	2735.11	-0.4	2746.04	2726.14	2720.42	2563.06	3.63	2.41	14.29	51.26	1047.52
36 Health Care(20)	2063.20	+0.6	2050.37	2019.25	2008.31	1737.10	2.57	1.88	25.89	12.20	1246.55
37 Pharmaceuticals(12)	5073.15	+0.9	5028.81	4971.48	4957.98	3825.46	3.36	1.86	19.98	81.77	1723.13
38 Tobacco(1)	4290.50	+0.8	4256.62	4167.67	4214.26	4023.61	5.92	2.00	10.56	156.18	1077.74
40 SERVICES(254)	2528.12	-0.2	2532.75	2528.78	2549.21	1985.65	2.79	2.06	21.61	31.92	1313.10
41 Distributors(32)	2983.36	+0.2	2977.64	2964.68	2973.75	2440.45	2.81	1.72	25.82	35.69	1100.50
42 Leisure & Hotels(23)	3243.80	-	3242.65	3245.75	3260.67	2245.05	2.71	1.95	23.62	141.77	1746.88
43 Media(46)	4252.54	-0.2	4260.48	4258.20	4288.30	2951.35	2.10	1.95	30.48	46.40	1540.12
44 Retailers, Food(15)	1947.30	-0.1	1949.04	1941.71	1944.94	1913.79	3.84	2.41	13.52	19.54	1231.69
45 Retailers, General(43)	2075.98	-0.6	2088.49	2084.54	2111.76	1670.87	2.91	2.21	19.47	19.09	1181.70
47 Breweries, Pubs & Rest.(24)	3172.18	-0.1	3175.14	3177.60	3200.52	2332.02	3.11	2.08	19.32	15.93	1512.71
48 Support Services(50)	2347.04	+0.2	2341.32	2328.65	2335.66	1548.97	2.06	2.59	23.41	16.45	1488.15
49 Transport(21)	2437.86	-0.1	2439.80	2446.51	2478.64	2224.51	3.56	1.41	24.89	26.66	1013.23
60 UTILITIES(33)	2558.85	-1.0	2584.41	2591.25	2604.40	2339.55	4.85	2.05	12.54	35.13	1080.32
62 Electricity(12)	2878.87	-1.3	2917.77	2940.29	2922.88	2214.63	4.86	2.56	10.06	137.11	1385.68
64 Gas Distribution(2)	1563.75	-0.8	1576.30	1592.92	1599.32	2045.00	7.68	1.36	11.99	0.00	784.56
66 Telecommunications(7)	2141.44	-0.9	2159.81	2152.86	2172.35	2031.17	3.94	1.75	18.08	0.15	989.34
68 Water(12)	2148.53	-0.9	2168.45	2181.32	2212.09	1837.86	5.69	2.59	8.50	3.61	1165.13
69 NON-FINANCIALS(667)	2042.92	-0.3	2048.89	2044.34	2054.57	1724.52	3.68	1.94	17.53	31.61	1547.38
70 FINANCIALS(105)	2854.46	-0.3	2871.73	2872.45	2888.49	2304.29	4.15	2.63	11.46	66.80	1237.98
71 Banks, Retail(8)	3901.46	-0.4	3918.00	3915.43	3944.36	3087.35	3.98	2.90	10.84	104.55	1283.04
72 Banks, Merchant(6)	3645.34	-0.2	3651.91	3636.81	3625.15	3277.93	2.70	2.39	19.35	36.38	1154.78
73 Insurance(23)	1381.62	+0.4	1375.54	1378.14	1391.45	1289.63	5.71	3.15	6.95	37.62	1040.27
74 Life Assurance(6)	3651.63	-0.6	3661.15	3694.36	3714.36	2537.03	4.09	2.18	14.01	100.72	1530.78
77 Other Financial(21)	2659.06	+0.6	2643.26	2639.99	2690.31	1988.27	3.67	1.81	18.78	27.06	1506.88
79 Property(41)	1579.96	-0.1	1581.39	1587.21	1588.52	1357.42	4.00	1.32	23.73	13.45	986.92
80 INVESTMENT TRUSTS(126)	3274.83	+0.1	3273.06	3278.37	3287.58	2717.72	2.11	1.06	55.82	24.17	1142.05
89 FT-SE-A ALL-SHARE(898)	1909.39	-0.3	1914.61	1911.39	1921.09	1598.05	3.70	2.05	16.52	31.46	1612.74
FT-SE-A Fledgling	1243.37	+0.2	1241.36	1238.64	1287.24	976.77	2.76	2.18	20.79	11.38	1297.10
FT-SE-A Fledgling ex Inv Trusts	1251.03	+0.2	1248.88	1245.89	1243.92	971.29	2.99	2.36	17.72	12.29	1305.09

■ Hourly movements

	Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.10	High/day	Low/day
FT-SE 100	3817.2	3808.5	3808.9	3806.1	3806.1	3807.3	3810.6	3803.4	3808.7	3817.2	3803.4
FT-SE Mid 250	4548.4	4546.2	4544.0	4544.5	4542.8	4542.5	4542.2	4537.9	4539.8	4548.5	4537.8
FT-SE-A 350	1931.1	1927.5	1927.4	1927.2	1926.2	1926.7	1927.9	1924.7	1926.2	1931.1	1924.7

Time of FT-SE 100 Day's High: 8:30 AM Day's low: 3:01 PM. FT-SE 100 1996 High: 3857.1 (19/04/96) Low: 2954.2 (23/01/96).

■ FT-SE Actuaries 350 Industry baskets

	Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.10	Close	Previous	Change
Bldg & Cnstrcn	1245.6	1246.1	1241.2	1240.7	1237.9	1236.7	1236.4	1236.1	1234.8	1234.6	1247.7	-13.1
Pharmaceuticls	4959.9	4939.4	4939.2	4938.6	4938.3	4960.8	5003.0	4996.4	5005.5	5003.6	4959.7	+43.9
Water	2158.8	2158.0	2155.9	2152.5	2146.8	2146.5	2143.0	2123.7	2139.3	2140.7	2161.0	-20.3
Banks, Retail	3967.6	3959.0	3969.4	3962.6	3962.4	3969.6	3960.4	3938.5	3950.8	3951.3	3969.0	-16.7

Additional information on the FT-SE Actuaries Share Indices is published in Saturday issues.
The FT-SE Actuaries Share Indices are calculated by FT-SE International Limited in conjunction with the Faculty of Actuaries and the Institute of Actuaries. © FT-SE International Limited 1996. All Rights reserved. The FT-SE Actuaries Share Indices are calculated in accordance with a standard set of ground rules established by FT-SE International Limited in conjunction with the Faculty of Actuaries and the Institute of Actuaries. "FT-SE" and "Footsie" are trademarks of the London Stock Exchange and the Financial Times Limited and are used by FT-SE International Limited under licence. Auditor: The WM Company. † Sector P/E ratios greater than 80 are not shown. ‡ Values are negative. NAME CHANGE: Group Development Trust now Group Trust (Fledgling).

TRADING VOLUME

■ Major Stocks Yesterday

	Vol. 000s	Closing price	Day's change
3i†	567	453	+2
ASDA Group†	7,600	113½	-¼
Abbey National†	3,200	582	-7
Albert Fisher	115	51	
Allied Domecq†	2,600	501	-12½
Anglian Water	1,800	577	-2
Argos†	215	649	
Argyll Group†	2,300	332½	+½
Arjo Wiggins	950	181	-2
Assoc. Brit. Foods†	490	394	-4
Assoc. Brit. Ports	420	299	-1
BAA†	3,200	546	-1
BAT Inds.†	6,000	507	+4½
BET	8,700	228½	+2½
BBA	2,200	346	-2
BICC	5,000	342	-5
BOC†	1,000	926	+2
BP†	10,000	682	-7½
BPB Inds.	1,600	334	+2
BSkyB†	667	480	+2
BT†	5,200	350	-4½
BTR†	12,000	318½	-1½
Bank of Scotland†	2,000	244½	-5
Barclays†	3,700	739	+3
Bass†	1,200	783	-1
Blue Circle†	1,400	370	-4½
Booker	241	385	-2
Boots†	1,200	637	+3
Britannic	386	788	
Brit. Aerospace†	674	963	-6
British Airways†	1,400	519	
British Biotech	184	2865	-60
British Gas†	14,000	234	-2
British Land	1,100	431	-2
British Steel†	2,300	188½	-
Bunzl	1,500	233	+3
Burmah Castrol†	439	1059	-4
Burton†	3,300	154½	-2¼
Cable & Wire†	2,700	520½	-1
Cadbury Schweppes†	934	513	-3½
Caradon	1,100	234	+4
Carlton Comms.†	2,300	461	-6
Chubb	238	375	-6
Coats Viyella	2,900	185	-7
Comm. Union†	505	581	+4
Compass	442	542	-5
Cookson†	7,200	312	-3
Courtaulds†	310	426	-2
Dalgety	570	385	-6
De La Rue	285	745	+2
Dixons†	1,500	493	
East Midland Elect.	181	614	-13
Electrocomps	707	407	+8
Eng China Clays	58	293	+1
Enterprise Oil†	993	445	-3
Eurotunnel Units	305	75	+½
FKI	1,800	167	
Foreign & Col. I.T.†	415	165½	
Gen. Accident†	1,800	625	-7
General Elect.†	3,200	359	-½
Glaxo Wellcome†	6,300	818	+12
Glynwed	1,200	369	-1
Granada†	1,400	822	-2
Grand Met.†	2,800	434	-3
GUS†	2,600	717	-8
Greenalls†	1,000	632	+8
GRE†	8,600	230	+4½
GKN†	1,200	980	-3
Guinness†	5,400	483	+4½
HSBC (75p shs)†	651	986	+2
Hammerson	831	385	-1
Hanson†	8,000	197½	+½
Harrisons Crosfield	1,900	147	-2
Hays	1,300	429	-2
Hillsdown	132	179	
Hyder	607	730	-5
IMI	1,600	375	+3
ICI†	1,200	901	+1
Inchcape	2,300	295	+1
Johnson Matthey	216	608	
Kingfisher†	673	585	-10
Kwik Save	847	468	-5
Ladbroke†	3,400	193	-2½
Land Securities†	630	655	
Laporte	1,600	742	-6
Legal & General†	2,200	712	-4
Lloyds Abbey	218	532	-6
Lloyds TSB†	8,400	314	-4½
LASMO†	3,900	191	-3
London Elect	94	813	-14
Lonrho	894	193	-½
Lucas	1,100	213	-2
MEPC	521	428	-3
MFI	2,800	179	+1
Marks & Spencer†	7,000	438	-5½
Mercury Asset Man	602	906	+10
Midlands Elect	398	380	-8
Morrison (Wm.)	45	171	-½
NFC	1,000	170	-1
NatWest Bank†	6,700	619½	+7
National Grid†	6,500	189½	-5½
National Power†	2,200	559	-2
Next	1,000	530	
Northern Elect.	339	641	-14
Northern Foods	68	181	
Pearson†	953	696	-10
P & O†	1,600	525	+3
Pilkington†	4,000	206	-5
PowerGen†	1,400	548	-10
Premier Farnell	1,000	741	+5
Prudential†	3,000	452	-5½
REXAM†	560	392	-4
RMC†	329	1093	+8
RTZ†	2,300	1047	+2
Racal	582	340	-5
Rank Org.†	6,200	539½	+6½
Reckitt & Colman†	2,400	722	-6
Redland†	969	422	-8
Reed Intl.†	1,200	1133	-10
Rentokil†	13,000	389	+5½
Reuters†	3,000	759	+6
Rolls Royce†	10,000	233½	-3½
Ryl Bk Scotland†	2,000	509	-10
Royal Insurance†	2,400	367	+3
Sainsbury†	2,300	367	+1
Schroders†	179	1303	-15
Scottish & New.†	824	685	-3
Scot. Hydro-Elect.	931	346	-1
Scottish Power†	1,400	359	-3½
Sears	5,100	100½	
Sedgwick	1,200	140	
Severn Trent†	711	593	-5
Shell Transport†	2,400	876	-½
Siebe†	613	858	-2
Slough Ests	3,100	239	-½
Smith (W.H.)	627	500	+5
Smith & Nephew†	8,000	195	+1¼
SmKl Beecham†	3,200	717½	+13
Smiths Inds.†	1,200	709	-2
Southern Elect†	661	828	-12
South West Water	285	676	-8
Southern Water	290	743	-19
Standard Chartd.†	2,200	613	-9
Storehouse	761	344	+½
Sun Alliance†	6,500	358	+3
T&N	1,900	176	-5
TI Group†	831	543	-4
Tarmac	4,500	132	+1½
Tate & Lyle†	328	482	
Taylor Woodrow	1,300	173	-1
TeleWest	510	169	-½
Tesco†	3,000	279	-1½
Thames Water†	1,400	569	-6
Thorn EMI†	1,300	1814	-29
Tomkins†	3,100	274	-1½
Trafalgar House	116	50	
Unigate	885	418	+2
Unilever†	1,400	1204	-12
United Biscuits	459	240	-1
Utd. News & Media	1,500	690	
United Utilities†	697	594	
Vodafone†	7,300	262½	-3
WPP	1,700	204	
Wessex Water	114	332	-8
Whitbread†	738	748	-1
Williams Hldgs.†	2,600	344	-1
Wills Corroon	59	165	
Wimpey	849	142	-2
Wolseley†	960	471	+2
Yorkshire Elect	130	810	-9
Yorkshire Water	4,500	668	-15
Zeneca†	1,800	1377	-16

Based on trading volume for a selection of major securities dealt through the SEAQ system yesterday until 4.30pm. † Indicates an FT-SE 100 index constituent. All trades are rounded. Source: FT Extel.

WORLD STOCK MARKETS

EUROPE

AUSTRIA (Apr 30 / Sch)

BELGIUM/LUXEMBOURG (Apr 30 / Frs.)

CZECH REP (Apr 30 / Korona)

DENMARK (May 1 / Kr)

FINLAND (Apr 30 / Mkk)

FRANCE (Apr 30 / Frs.)

GERMANY (May 1 / Dm.)

GREECE (Apr 30 / Drachmae)

ITALY (Apr 30 / Lire)

NETHERLANDS (May 1 / Fls.)

NORWAY (Apr 30 / Kroner)

POLAND (Apr 30 / Zloty)

PORTUGAL (Apr 30 / Escudo)

SPAIN (Apr 30 / Pts.)

SWEDEN (Apr 30 / Kronor)

SWITZERLAND (Apr 30 / Frs.)

TURKEY (Apr 26 / Tk Lira)

PACIFIC

JAPAN (May 1 / Yen)

HONG KONG (May 1 / H.K.$)

INDONESIA (May 1 / Rupiah)

MALAYSIA (Apr 30 / MYR)

NEW ZEALAND (May 1 / NZ $)

SINGAPORE (Apr 30 / S$)

AUSTRALIA (May 1 / Aus$)

SOUTH KOREA (Apr 30 / Won)

TAIWAN (May 1 / TW $)

THAILAND (Apr 30 / Baht)

AFRICA

SOUTH AFRICA (Apr 30 / Rand)

NORTH AMERICA

CANADA

TORONTO (May 1 / Can $)

4 pm close

MONTREAL (May 1 / Can $)

4 pm close

INDICES

	May 1	Apr 30	Apr 29	1996 High		1996 Low	
Argentina							
General(29/12/77)	(u) 17580.30	17425.69	18191.56	31/1		15528.81	19/3
Australia							
All Ordinaries(1/1/80)	2313.4	2316.6	2320.0	2328.00	26/4	2187.40	11/3
All Mining(1/1/80)	1099.1	1097.9	1098.2	1107.90	25/4	1004.70	16/1
Austria							
Credit Aktien(30/12/84)	(c)	383.17	382.36	387.24	25/4	352.78	2/1
Traded Index(2/1/91)	(c)	1118.58	1117.54	1131.21	26/4	976.27	2/1
Belgium							
BEL20(1/1/91)	(c)	1721.0	1723.34	1765.71	7/3	1574.99	2/1
Brazil							
Bovespa(29/12/83)	(c)	51641.0	51493.0	54109.00	2/2	43901.00	2/1
Canada							
Metals Mins♦(1975)	(u)	5498.10	5542.35	5548.64	18/4	4687.47	16/1
Composite♦(1975)	(u)	5145.50	5152.40	5152.40	29/4	4730.70	15/1
Portfolio§§(4/1/83)	(u)	2482.19	2491.25	2491.25	29/4	2327.39	12/1
Chile							
IGPA Gen♥(31/12/80)	(u)	5498.75	5510.98	5894.33	8/1	5215.28	8/4
Denmark							
CopenhagenSE(3/1/83)	388.43	387.35	387.82	388.43	1/5	358.40	2/1
Finland							
HEX General(28/12/90)	(c)	1944.65	1916.74	1944.65	30/4	1651.67	10/1
France							
SBF 250(31/12/90)	(c)	1453.88	1446.26	1453.88	30/4	1250.16	2/1
CAC 40(31/12/87)	(c)	2146.79	2130.78	2146.79	30/4	1887.85	11/1
Germany							
FAZ Aktien(31/12/58)	(c)	883.86	882.54	902.33	23/4	818.56	2/1
Commerzbank(1/12/53)	(c)	2544.3	2567.8	2601.90	23/4	2370.20	2/1
DAX‡(30/12/87)	(c)	2505.25	2506.46	2550.18	23/4	2284.88	2/1
Greece							
Athens SE(31/12/80)	(c)	913.20	901.03	1017.98	4/3	901.03	29/4
Hong Kong							
Hang Seng(31/7/64)	10907.01	10964.53	10835.75	11594.99	19/2	10204.87	2/1
India							
BSE Sens.(1979)	3626.72	(c)	(c)	3869.67	24/4	2826.08	25/1
Indonesia							
Jakarta Comp.(10/8/82)	629.47	623.50	625.36	630.21	24/4	612.48	2/1
Ireland							
ISEQ Overall(4/1/88)	2538.09	2524.14	2533.63	2538.09	1/5	2234.81	2/1
Italy							
Banca Comm. Ital(1972)	(c)	657.75	654.18	691.91	26/4	572.21	23/3
MIB General(2/1/88)	(c)	1115.0	1109.0	1122.00	26/4	970.00	27/3
Japan							
Nikkei 225(16/5/49)	21815.01	22041.30	(c)	22282.05	24/4	19734.70	13/3
Nikkei 300(1/10/82)	313.79	316.96	(c)	318.86	26/4	284.48	11/3
Topix(4/1/68)	1697.61	1712.42	(c)	1718.00	26/4	1624.12	13/3
2nd Section(4/1/68)	2239.38	2229.24	(c)	2239.38	1/5	1992.78	14/3
Malaysia							
KLSE Comp.(4/4/86)	(c)	1189.54	(c)	1189.54	30/4	983.18	2/1
Mexico							
IPC(Nov 1978)	(c)	3187.19	3200.09	3284.48	19/4	2736.38	8/3
Netherland							
CBS TtlRtnGen(End 83)	614.5	(c)	613.7	614.60	1/5	539.50	2/1
CBS All Shr(End 83)	370.2	(c)	369.7	370.20	1/5	326.70	2/1
New Zealand							
Cap. 40(1/7/86)	2143.13	2153.18	2152.13	2203.08	4/1	2044.71	24/1
Norway							
Oslo SE(Ind)(2/1/83)	(c)	1437.69	1444.72	1444.72	29/4	1259.68	30/1
Philippines							
Manila Comp(2/1/85)	(c)	2937.98	2960.10	3016.63	16/4	2578.97	2/1
Portugal							
BVL 30(4/1/93)	(c)	1835.51	1823.28	1836.61	30/4	1602.81	2/1
Singapore							
SES All-S'pore(2/4/75)	(c)	587.73	(c)	610.37	5/2	553.89	2/1
South Africa							
JSE Gold(28/9/78)	(c)	1941.7♥	1926.9	1959.60	26/4	1348.40	3/1
JSE Ind.(28/9/78)	(c)	8288.8♥	8253.9	8739.38	25/1	8009.40	3/1
South Korea							
KoreaCmpEx**(4/1/80)	(c)	980.90	985.03	985.03	29/4	838.87	13/3
Spain							
Madrid SE(30/12/85)	(c)	358.41	360.46	361.78	26/4	323.75	11/1
Sweden							
AffarsvarldnGen(1/2/37)	(c)	1933.0	1932.0	1949.50	22/4	1706.80	22/1
Switzerland							
Swiss Bk Ind(31/12/58)	(c)	1782.36	1765.35	1779.54	25/4	1516.19	17/1
SBC General(1/4/87)	(c)	1249.83	1250.58	1259.88	26/4	1114.47	26/1
Taiwan							
WeightedPr**(30/6/66)	6114.14	6134.28	6182.70	6182.70	29/4	4690.22	6/2
Thailand							
Bangkok SET(30/4/75)	(c)	1292.61	1287.39	1415.04	6/2	1247.79	13/3
Turkey							
Istanbul Cmp.(Jan 1986)	(c)	(c)	(c)	72086.80	8/4	38779.30	2/1
WORLD							
MS Capital Intl(1/1/70)	775.2*	777.9	779.4	779.40	29/4	725.90	15/1
CROSS-BORDER							
Eurotrack 100(26/10/90)	1679.81	1681.09	1685.55	1692.57	26/4	1504.40	11/1
Euro Top-100(26/6/90)	1451.68	1451.79	1450.04	1458.28	26/4	1333.01	11/1
HSBC JC Dragn(31/12/88)	(u)	383.14	380.24	383.18	16/4	344.19	2/1
ING Bngs Emrg(7/1/92)	163.11	162.94	162.81	163.65	22/4	147.35	2/1

** Sat Apr 27: Taiwan Weighted Price 6115.92; Korea Comp Ex 988.45. Base values of all indices are 100 except: Australia All Ordinary and Mining – 500; Austria Traded, BEL20, HEX Gen., MIB Gen., BVL 30, SBF250, CAC40, Euro Top-100, ISEQ Overall; Toronto Comp./Metals & Minerals and DAX – all 1,000; JSE Gold – 255.7; JSE 28 Industrials – 264.3; NYSE All Common – 50 and Standard and Poor's – 10 §§ Montreal. ♦ Toronto. (c) Closed. (u) Unavailable. ‡ IBIS/DAX after-hours index: Apr 30 – 2492.63.

US INDICES

Dow Jones	Apr 30	Apr 29	Apr 26	1996 High	1996 Low	Since compilation High	Since compilation Low
Industrials	5569.08	5573.41	5567.99	5689.74 (3/4)	5032.94 (10/1)	5689.74 (3/4/96)	41.22 (2/7/32)
Home Bonds	101.96	102.26	102.29	108.09 (14/2)	101.96 (30/4)	109.77 (18/10/93)	54.99 (1/10/81)
Transport	2205.85	2194.26	2197.91	2221.06 (18/4)	1882.71 (18/1)	2221.06 (18/4/96)	12.32 (8/7/32)
Utilities	210.10	210.17	209.40	234.00 (12/2)	208.40 (11/4)	258.45 (31/8/93)	10.50 (8/4/32)

DJ Ind. Day's high 5606.29 (5611.71) Low 5522.88 (5515.29) (Theoretical♦)
Day's high 5579.92 (5589.31) Low 5547.04 (5552.82) (Actual♦)

Standard and Poors	Apr 30	Apr 29	Apr 26	1996 High	1996 Low	Since compilation High	Since compilation Low
Composite‡	654.17	654.16	653.46	661.45 (12/2)	598.48 (10/1)	661.45 (12/2/96)	4.40 (1/6/32)
Industrials♥	777.01	776.93	775.78	777.01 (30/4)	702.07 (15/1)	777.01 (30/4/96)	3.62 (21/6/32)
Financial	65.45	65.42	65.50	68.98 (6/3)	58.57 (10/1)	68.98 (6/3/96)	8.64 (1/10/74)
NYSE Comp.	351.24	351.24	350.82	351.92 (4/4)	321.41 (10/1)	351.92 (4/4/96)	4.46 (25/4/42)
Amex Mkt Val	590.80	592.75	593.57	593.57 (26/4)	529.05 (18/1)	593.57 (26/4/96)	29.31 (9/12/72)
NASDAQ Cmp	1190.52	1188.20	1186.89	1190.52 (30/4)	988.57 (15/1)	1190.52 (30/4/96)	54.87 (31/10/72)

■ RATIOS

	Apr 26	Apr 19	Apr 12	Year ago
Dow Jones Ind. Div. Yield	2.17	2.17	2.17	2.55
	Apr 24	Apr 17	Apr 10	Year ago
S & P Ind. Div. yield	1.87	1.90	1.82	2.24
S & P Ind. P/E ratio	21.43	21.13	30.83	18.39

■ NEW YORK ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Change on day
Philp Mrrs	8,542,000	8⅝	—
Chilgener SA	5,785,200	22⅝	–⅛
Micron	4,573,400	36⅝	–⅛
Telefonos	4,064,600	34	–¼
Brwng Fers	3,939,800	32¼	+2⅝
PepsiCo	3,445,000	63½	+2⅛
Sprint	3,316,800	42⅛	–⅛
WalMart	3,282,000	23⅝	+⅛
Zenith	3,179,800	9⅝	+2½
Intl Tech	2,868,100	2½	+¼

■ TRADING ACTIVITY

● Volume (million)

	Apr 30	Apr 29	Apr 26
New York SE	383.171	342.519	398.870
Amex	29.118	27.661	31.085
NASDAQ	619.427	566.602	658.864
NYSE			
Issues Traded	3,128	3,138	3,107
Rises	1,152	1,092	1,360
Falls	1,199	1,233	944
Unchanged	777	813	803
New Highs	110	129	168
New Lows	15	15	8

INDEX FUTURES

	Open	Sett Price	Change	High	Low	Est. vol.	Open Int.
■ CAC-40 (200 x Index) (Apr 30)							
Apr	2130.0	2140.9	+12.9	2141.0	2123.5	18,551	10,918
May	2119.5	2139.0	+20.5	2141.0	2115.0	26,126	33,759
■ DAX (Apr 30)							
Jun	2508.5	2491.0	–14.0	2511.5	2485.5	20,411	–
Sep	2495.0	2510.5	–14.0	2525.0	2488.5	96	–
■ OMX (Apr 30)							
Apr	–	1518.00	+9.25	–	–	–	–
May	–	1510.50	+13.50	–	–	–	–
■ SOFFEX (Apr 30)							
May	3658.0	3648.5	–3.5	3686.0	3644.0	2,958	19,321
Jul	3628.0	3628.0	–8.0	3628.0	3628.0	26	2,385

	Open	Latest	Change	High	Low	Est. vol.	Open int.
■ S&P 500							
Jun	654.80	654.75	–0.10	655.10	653.70	57,081	177,422
Sep	660.20	660.25	–0.10	660.25	659.50	728	7,084

	Open	Sett price	Change	High	Low	Est. vol.	Open Int.
■ Nikkei 225							
Jun	22020.0	21790.0	–370.0	22130.0	21780.0	22,973	262,023
Sep	22190.0	21890.0	–210.0	22190.0	21890.0	2,316	15,542

Open interest figures for previous day.

† Correction. * Calculated at 15.00 GMT. ● Excluding bonds. ‡ Industrial, plus Utilities, Financial and Transportation. ♦ The DJ Ind. index theoretical day's highs and lows are the averages of the highest and lowest prices reached during the day by each stock; whereas the actual day's highs and lows (supplied by Telekurs) represent the highest and lowest values that the index has reached during the day. (The figures in brackets are previous day's). ♥ Subject to official recalculation.

Prices supplied by Telekurs

NOTES – Prices on this page are as quoted on the individual exchanges and are mostly last traded prices. Highs/Lows are based on data from Jan 1 1996. s Dealings suspended. xd Ex dividend. xc Ex scrip issue. xr Ex rights. xa Ex all. † Priced in US $.

■ TOKYO – MOST ACTIVE STOCKS: Wednesday, May 1, 1996

	Stocks Traded	Closing Prices	Change on day
Janome Sewing	7.5m	443	+27
Tokyo Gas	5.1m	412	+1
NHK Spring	4.9m	646	+13
NOK Corp	4.5m	1050	+40
Towa Rl Est	4.4m	502	+23
Hokuriku Elect	4.0m	789	+64
Gun-Ei Chem Ind	3.9m	620	+40
Hitachi	3.7m	1130	
Shinko Electric	3.6m	959	-25
Nippon Stl Corp	3.6m	372	-6

4 pm close May 1

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

[illegible]

Continued on next page

4 pm close May 1

NYSE COMPOSITE PRICES

Cont'd from previous page

1996 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Chng Prev. Close
[illegible]										
14	11	WiserO	0.12	0.9	54	22	13⅝	13½	13½	
36¼	28⅛	Witco Corp	1.12	3.3	19	784	34⅞	34¼	34⅜	+¼
30½	23¾	WMC ADR	0.60	2.0	185	33	29⅞	29½	29¾	+¼
35⅛	27¾	WMX T	0.60	1.7	24	23568	35	34⅜	34⅞	+⅛
31⅜	23¾	Wolverine	0.16	0.5	21	349	31⅜	30⅝	31⅜	+½
19¾	9⅜	Woolwth	0.80	3.2	15	5370	19¼	18⅞	19	-⅛
20⅞	17⅛	World Wide	0.10	0.5		135	u20⅞	20⅝	20⅞	+¼
10¾	6⅝	Worldcorp			2	470	9½	9¼	9¼	-¼
34⅜	31	WPS Re	1.86	5.8	13	53	32	31½	31⅞	+¼
62⅞	51¼	Wrigley	0.68	1.3	26	4699	52⅞	52⅛	52⅛	-½
43¾	27⅜	Wyle Labor	0.32	0.8	13	517	42⅝	41⅞	42⅜	+½
27⅞	16	Wynns Int	0.40	1.5	15	166	27¼	27⅛	27¼	+⅛

- X - Y - Z -

1996 High	Low	Stock	Div	Yld %	P/E	Sls 100s	High	Low	Close Quote	Chng Prev. Close
151	119⅝	Xerox	3.48	2.3	38	7386	149¼	145¾	148⅛	+1⅝
47⅞	38¾	Xtra Corp	0.72	1.6	14	43	45⅞	45⅝	45⅝	-⅛
25¾	21¼	Yankee Egy	1.28	5.6	15	22	22⅜	22¼	22⅜	
50⅝	43⅞	York Int	0.36	0.7	21	850	50	48⅛	50	+2
3¾	3	Zapata	0.14	3.8	6	129	u3¾	3⅝	3⅝	
13	5⅞	ZenithE				657532	u13	9½	12⅛	+2½
25½	21⅛	Zenith Nat x	1.00	3.9	36	169	u25½	25⅛	25½	+⅜
7⅛	6½	Zenix Inc	0.72	10.5		27	7	6⅞	6⅞	
18¼	15⅛	Zero	0.12	0.7	17	155	17⅞	17½	17¾	-¼
23¼	19⅝	Zurn Ind	0.40	2.0	16	222	20½	20⅜	20½	+⅛
11⅝	10¾	Zweig Fund	1.12	10.0		412	11¼	11⅛	11¼	+⅛
9	8½	Zweig Tot	0.84	9.6		418	8¾	8⅝	8¾	+⅛

Price data supplied by Telekurs

Yearly highs and lows for NYSE reflect the period from Jan 1 1996. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration. Sales figures are unofficial.

d-new yearly low. P/E price-earnings ratio. ex-sales. u-new yearly high. x-ex-dividend or ex-rights. yld-yield. z-sales in full.

† Dealings suspended.

FT Free Annual Reports Service

You can obtain the current annual/interim report of any company annotated with ♣. Please quote the code FT3185. Ring 0181 770 0770 (open 24 hours including weekends) or fax 0181 770 3822. If calling from outside the UK, dial +44 181 770 0770 or fax +44 181 770 3822. Reports will be sent on the next working day, subject to availability.

AMEX COMPOSITE PRICES

4 pm close May 1

[illegible]

NASDAQ NATIONAL MARKET

4 pm close May 1

[illegible]

- X - Y - Z -

Stock	Div.	P/E	Sls 100s	High	Low	Last	Chng
[illegible]		29	11592	38¾	36⅝	37⅞	+1
[illegible]		41	1398	u17½	15⅞	17⅛	+1
[illegible]		5	2013	5¾	5½	5⅝	-1/16
[illegible]		7	500	12⅜	12⅛	12⅛	-⅛
[illegible]		29	872	8¼	7⅞	8⅛	
[illegible]		12	263	75	74½	74⅞	+⅜

AMERICA

Technology stocks push Nasdaq forward

Wall Street

Technology shares in the Nasdaq composite continued their upward streak in midsession trading yesterday, while other sectors posted more modest gains as the bond market strengthened, *writes Lisa Bransten in New York*.

At 1 pm the technology-rich Nasdaq composite was well on its way to a tenth consecutive record close with a gain of 8.95 at 1,199.47. The Pacific Stock Exchange composite added 1.1 per cent.

Leading the charge were Internet related stocks that got a boost on Tuesday from news that MFS Communications, a US specialty telecommunications company, and UUNet Technologies, an Internet access provider, had agreed to merge. UUNet, which rose more than $10 on Tuesday, added $4¼ or 7 per cent, bringing the shares to $63.

Other Internet access companies also posted a second day of gains. PSINet rose $2⅝ or 16 per cent to $16⅝ and NetComm On-Line Communication Services gained $4⅞ or 13 per cent at $40⅝.

The American Stock Exchange/Interactive Week index of Internet-related issues gained 1.3 per cent in early trading.

Gains were more modest on the Dow Jones Industrial Average and other, broader indices. At 1 pm the Dow was up 25.29 at 5,594.37, the Standard & Poor's 500 put on 2.21 at 656.38 and the American Stock Exchange composite climbed 2.94 to 593.84. Volume on the NYSE came to 233m shares.

Bonds were supporting the equity market as they reversed some of the week's losses in spite of a gain in the National Association of Purchasing Management's figure on manufacturing activity.

Chrysler added $⅞ at $63⅝ after announcing car sales figures that showed a continuation of its strong start this year. Car sales advanced 22 per cent and light truck sales were 40 per cent higher. Those results stand in stark contrast to a poor start for the car market made last year.

Uniroyal Chemical moved up $3⅞ or 23 per cent to $14⅛ on news that it had agreed to merge with Crompton & Knowles for about $15 a share in stock. Crompton & Knowles added $⅝ at $15⅝.

Discreet Logic lost more than 40 per cent of its market value as the shares plunged $6½ to $9⅞ after the video effects company said it expected to turn in a "significant" loss in the third quarter.

Canada

Toronto was modestly higher in midsession trading, with the TSE-300 composite index up 13.59 at 5,160.06.

Most of the 14 sub-groups were higher, with the golds group leading the advance, up nearly 1 per cent. Real estate stocks had made 0.8 per cent and the transportation group was up 0.5 per cent. Energy shares were going in the other direction, off 0.6 per cent.

EUROPE

Dutch shares higher

With most of the Continent's markets closed for the May Day holiday, attention moved to AMSTERDAM, where the market nudged to yet another record high as dollar strength supported equities.

The AEX index rose 1.12 to 555.72, and also struck an intraday high of 556.94 before profit-taking took hold.

The financials were popular, with ING and ABN Amro pulling the market along with them. The stocks improved a respective Fl 1.50 and Fl 1.20 to Fl 133.80 and Fl 89.90.

Trade was fairly light and many brokers were awaiting first-quarter results from Unilever and DSM today. DSM eased Fl 3 to Fl 172.

COPENHAGEN was lifted by good trade in Sophus Berendsen and the stronger dollar. However, many analysts thought profit-taking was now in store in the days ahead. The KFX 20 index gained 0.48 at 114.30 in turnover of DKr806m.

A firmer dollar helped to push the index higher, with A.P. Moeller's D/S 1912 and D/S Svendborg both rising DKr1,000 to a respective DKr131,000 and DKr138,000.

Sophus Berendsen climbed DKr15 to DKr789. Tele Danmark lost DKr13 to DKr284 in 128,000 shares traded.

TEL AVIV moved sideways as investors waited for the May 29 elections. The Mishtanim index edged up 0.14 to 204.16 in turnover of only Shk61m.

The most active stock was Elite Industries, which surged 4.7 per cent to Shk1,165 on turnover of just Shk3.8m. Elite reported a net loss in the last quarter of 1995 of Shk47.2m, against a deficit of Shk3.1m a year earlier. Traders said that the loss was the result of a one-time charge and they expected the company to publish improved results in 1996.

FT-SE Actuaries Share Indices

May 1	THE EUROPEAN SERIES							
Hourly changes	Open	10.30	11.00	12.00	13.00	14.00	15.00	Close
FT-SE Eurotrack 100	1680.72	1681.28	1680.97	1681.27	1681.38	1680.89	1680.08	1679.81
FT-SE Eurotrack 200	1728.57	1731.15	1729.20	1729.19	1727.88	1729.90	1727.90	1728.01

	Apr 30	Apr 29	Apr 26	Apr 25	Apr 24
FT-SE Eurotrack 100	1681.09	1685.55	1692.57	1684.54	1683.71
FT-SE Eurotrack 200	1728.15	1731.09	1742.61	1733.73	1732.07

Base value 1000 (26/10/90); High/day: 100 - 1681.97; 200 - 1731.24 Low/day: 100 - 1679.47 200 - 1726.45 † Partial.

ASIA PACIFIC

Nikkei declines below 22,000

Tokyo

Uncertainty over the course of the yen weighed on investor sentiment, and the Nikkei average declined 1 per cent, falling below the 22,000 level for the first time in seven trading days, *writes Emiko Terazono in Tokyo*.

The Nikkei 225 index receded 226.29 to 21,815.01 after moving between 21,772.71 and 22,087.33. The index closed below 22,000 for the first time since April 19 on selling triggered by a fall in futures prices. Bargain hunting by domestic institutions provided some support for the index, but their purchases remained limited ahead of the five-day weekend starting tomorrow.

Volume was 447m shares, against 402m. Technical trading dominated activity as most domestic and foreign investors remained inactive. Investment trusts actively placed index-linked sell orders, while individual investors traded speculative favourites.

The Topix index of all first section stocks fell 14.81 to 1,697.61 and the Nikkei 300 index gave up 3.17 to 312.79. Declines led advances by 696 to 386, with 142 issues unchanged.

Dealers sold futures positions to cut their losses. Arbitrage sales linked to the Topix index mounted in the afternoon as the Topix based futures market fell below the underlying cash index.

In London the ISE/Nikkei 50 index put on 0.88 at 1,470.51.

Speculative trading led activity. Janome Sewing Machine, the most active issue of the day, rose Y27 to Y443. NHK Spring, a leading suspension spring maker, gained Y13 to Y545 and Koito Mfg, a car parts maker, advanced Y31 to Y1,000.

Uncertainty over currency fluctuations depressed high-technology stocks. Toshiba dropped Y11 to Y803 and NEC lost Y20 to Y1,310. Car makers also turned down, with Toyota Motor slipping Y10 to Y2,380 and Nissan Motor declining Y19 to Y865.

Hopes of a recovery in personal consumption lifted department stores. Mitsukoshi, the high street retailer, rose Y30 to Y1,190 and Sogo gained Y9 to Y570.

In Osaka, the OSE average fell 152.37 to 23,592.40. Nintendo bucked the trend with a rise of Y100 to Y8,180, helped by a positive outlook for the company's 64-bit video games which are due to be launched in the summer.

Roundup

HONG KONG was moderately lower as investors took profits following the market's gain of more than 200 points earlier in the week. The rate cuts in China were largely ignored.

The Chinese central bank said late on Tuesday that it would trim its base lending rates to domestic banks by an average of 0.75 basis points and deposit rates by an average of 0.98 basis points from Wednesday.

The Hang Seng index fell 57.52 to 10,907.01 as turnover remained low at HK$3.3bn, against Tuesday's HK$3.6bn.

Brokers noted that although China-related stocks made gains, most dealers were waiting for confirmation that the rate cut signalled the end of Beijing's austerity programme.

The H share index of 18 mainland China companies surged 46.65 or 5.6 per cent to 872.35.

H shares dominated the gainers: Tsingtao made 27.5 cents or 13 per cent to HK$2.40, Shanghai Haixing surged 10.5 per cent to HK$0.63 and Kunming Machine jumped 13 cents or 14 per cent to HK$1.05.

Among the major blue chips, Swire A shed HK$1.25 to HK$64.75 after its covered warrant issue and the sale of its local airline holdings to Chinese interests.

Citic Pacific retreated 45 cents to HK$29.95 following news that it had agreed to spend more than HK$6bn to raise its stake in Swire's Cathay Pacific Airways division, up 40 cents to HK$13.90.

TAIPEI reversed an early rise as financials failed to support the overall market. The weighted index lost 20.14 or 0.3 per cent to 6,114.14, off a session's high of 6,184.79. Turnover was T$61.5bn, down from Monday's T$87bn.

Paper and construction shares were hit hard: Fortune Construction slid T$1.50 to T$38.50. But transportation stocks rose on persistent hopes of direct links with China, with China Airlines up by the daily permitted 7 per cent limit to T$38.50. In electronics, Acer climbed T$2 to T$61.

JAKARTA ended higher in moderate trading as investors bought selectively following price corrections over the last two sessions. The JSX index rose 5.56 to 629.47. Advancing stocks led declining issues by 62 to 42, with 41 shares unchanged and 93 untraded.

Volume was 60.8m shares, in turnover of Rp167.9bn.

Telekom was the major feature, rising Rp75 to Rp3,950 on 1m shares dealt.

Pan Brothers, a textiles company, moved ahead Rp50 to Rp800 on 1.6m volume on news that the government would give a tax incentive to the textile industry.

Barito Pacific, a timber group, surrendered Rp125 to Rp2,225 on news that the state-owned pension funds were to reduce portfolio holdings in the company.

On the foreign board, Astra International rebounded Rp25 to Rp3,475, Panin Bank slid Rp75 to Rp2,300 and Semen Cibinong appreciated Rp100 to Rp7,000.

SYDNEY fell back marginally, having languished in negative territory throughout the session. The All Ordinaries index slipped 3.4 to 2,313.4. Share price falls outpaced rises by 355 to 304. Turnover was 276.9m shares valued at A$526.4m.

Many brokers were waiting for today's release of current account data.

ICI Australia, a chemical and paint manufacturer, tumbled 55 cents to A$11.20, reflecting disappointment with its interim profits which were announced on Tuesday.

Azon, a diversified industrial concern, rallied 28 cents to A$2.20 following an A$2.10 a share takeover offer from Pacific BBA.

Pacific BBA, a maker of automotive components and construction products, said that it was also offering Azon shareholders a cash and scrip alternative, valuing Azon shares at A$2.21 based on Pacific BBA's closing price of A$2.97.

Mining stocks were mixed, with Western Mining climbing 15 cents to A$9.43, and Plutonic Resources, a gold miner, falling 32 cents to A$7.43.

BHP, the steel, mining and energy group, gained 12 cents to A$19.71, while CRA shed 4 cents to A$20.60.

The oil and gas index closed up 0.6 per cent, supported by a 13-cent rise in Woodside Petroleum to A$7.49. The company outlined expansion plans at its annual meeting on Tuesday.

WELLINGTON lost ground in quiet trading as debt market weakness sidelined most investors.

The yield on short-term 90-day bank bills has soared to around 9.57 per cent from levels of about 9.15 per cent in mid-April.

Brokers said the rise had hurt export and interest rate-sensitive stocks, such as Telecom and Fletcher Challenge Forests Division.

The NZSE-40 capital index eased 10.05 to 2,143.13.

Turnover was 20.4m shares valued at NZ$54.2m.

Analysts felt that high interest yields had been the main cause behind weakness in Telecom, which lost 2 cents at NZ$6.16. Fletcher Forests Division finished a cent softer at NZ$1.87.

DELHI was open for business as Bombay, Calcutta and Madras were closed for May Day. The index moved forward 5.22 to 878.83.

Polyester and industrial yarn maker Century Enka strengthened 15.5 per cent to Rps2,378.15 on good results for the fiscal year 1995/96.

The company said on Tuesday that its net profits have risen to Rps246.9m, from Rps76.6m a year ago, a figure which was depressed by strike action at its factories.

Reliance jumped Rps22.05 or 9 per cent to Rps266.70, with more than 17.6m shares traded as it attracted heavy speculative demand.

● Shenzhen and Shanghai were closed for International Workers' Day. Other markets shut yesterday included Malaysia, Pakistan, South Korea, Sri Lanka, Singapore and Thailand.

EMERGING MARKETS: IFC WEEKLY INVESTABLE PRICE INDICES

Market	No. of stocks	Dollar terms: Apr. 26 1996	Dollar terms: % Change over week	Dollar terms: % Change on Dec '95	Local currency terms: Apr. 26 1996	Local currency terms: % Change over week	Local currency terms: % Change on Dec '95
Latin America	(247)	518.34	+0.1	+9.9			
Argentina	(31)	878.93	+0.6	+9.7	538,919.75	+0.6	+9.7
Brazil	(68)	333.86	-0.4	+9.4	1,239.30	-0.3	+11.6
Chile	(43)	734.03	+1.7	-1.9	1,193.79	+1.5	-2.1
Colombia[1]	(15)	631.30	+5.2	+5.6	1,179.15	+5.3	+12.4
Mexico	(65)	539.02	-1.8	+18.9	1,717.70	-2.0	+14.1
Peru[2]	(20)	211.75	+5.1	+7.4	307.44	+5.4	+10.7
Venezuela[3]	(5)	485.47	+0.2	+45.2	5,218.86	+0.3	+99.9
Asia	(631)	271.67	+0.6	+17.0			
China[4]	(23)	57.13	-1.0	+5.6	60.06	-1.0	+5.7
South Korea[5]	(145)	135.75	+1.1	+7.8	139.01	+1.1	+8.3
Philippines	(35)	287.19	+1.2	+10.6	363.08	+1.2	+10.4
Taiwan, China[6]	(83)	138.65	+1.2	+22.9	141.52	+1.3	+22.5
India[7]	(76)	105.80	+1.9	+31.7	128.50	+1.9	+28.0
Indonesia[8]	(44)	129.35	-0.1	+17.9	163.60	-0.1	+20.1
Malaysia	(123)	327.97	+0.7	+21.0	301.80	+0.6	+18.8
Pakistan[9]	(25)	264.11	+5.9	+8.8	417.95	+6.2	+10.9
Sri Lanka[10]	(5)	111.24	-2.0	+6.9	132.20	-1.6	+9.4
Thailand	(72)	374.41	-1.8	-0.4	375.84	-1.8	-0.0
Euro/Mid East	(238)	142.94	-2.2	+0.9			
Greece	(47)	242.16	-4.7	+0.3	398.73	-4.0	+3.0
Hungary[11]	(8)	149.02	+1.1	+51.4	265.56	+2.8	+64.1
Jordan	(8)	178.01	-1.0	-3.6	265.74	-1.0	-3.6
Poland[12]	(22)	644.88	+2.4	+51.3	1,077.51	+3.5	+62.7
Portugal	(26)	121.60	-2.0	+5.0	130.78	-0.8	+10.0
South Africa[13]	(63)	238.45	-2.8	-7.6	217.62	+0.7	+12.0
Turkey[14]	(54)	148.74	-0.6	+42.3	5,213.88	+0.1	+74.4
Zimbabwe[15]	(5)	355.09	+1.6	+29.3	514.44	+1.7	+36.4
Composite	(1116)	304.95	-0.2	+10.6			

Indices are calculated at end-week, and weekly changes are percentage movement from the previous Friday. Base date: Dec 1988=100 except those noted which are: (1)Feb 1 1991; (2)Dec 31 1992; (3)Jan 5 1990; (4)Dec 31 1992; (5)Jan 3 1992; (6)Jan 4 1991; (7)Nov 6 1992; (8)Sep 28 1990; (9)Mar 1 1991; (10) Dec 31 1992; (11)Dec 31 1992; (12)Dec 31 1992; (13)Dec 31 1992; (14)Aug 2 1993; (15)July 2 1993.

FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by FT-SE International Limited, Goldman, Sachs & Co. and Standard & Poor's. The indices are compiled by FT-SE International and Goldman Sachs in conjunction with the Faculty of Actuaries and the Institute of Actuaries. NatWest Securities Ltd. was a co-founder of the indices.

NATIONAL AND REGIONAL MARKETS Figures in parentheses show number of lines of stock	TUESDAY APRIL 30 1996: US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	Local % chg on day	Gross Div. Yield	MONDAY APRIL 29 1996: US Dollar Index	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	DOLLAR INDEX: 52 week High	52 week Low	Year ago (approx)
Australia (80)	208.77	-0.3	206.26	138.24	166.45	176.60	-0.2	3.91	209.47	205.83	138.49	165.67	177.00	210.85	162.68	172.83
Austria (25)	186.21	-0.7	183.97	123.30	148.46	148.35	0.1	1.89	187.45	184.20	123.94	148.26	148.15	199.28	168.11	185.40
Belgium (31)	208.14	-0.4	205.64	137.82	165.95	161.76	0.1	4.06	209.06	205.43	138.22	165.34	161.65	215.81	186.06	194.97
Brazil (28)	157.42	-0.3	155.53	104.24	125.51	287.54	-0.3	1.39	157.94	155.20	104.42	124.92	288.46	170.25	123.97	133.70
Canada (99)	162.55	-0.1	160.60	107.63	129.60	160.25	-0.2	2.35	162.72	159.90	107.58	128.70	160.58	162.75	134.14	135.52
Denmark (30)	293.34	-0.9	289.82	194.24	233.88	235.89	-0.1	1.91	296.08	290.95	195.76	234.17	236.22	305.17	271.61	272.68
Finland (24)	183.30	1.2	181.10	121.38	146.15	186.66	1.8	2.66	181.17	178.03	119.78	143.29	183.28	276.11	171.73	201.61
France (97)	198.06	-0.2	195.68	131.15	157.91	160.85	0.6	2.98	198.39	194.95	131.17	156.91	159.86	198.39	167.70	183.03
Germany (60)	166.62	-0.9	164.62	110.33	132.84	132.84	-0.1	1.87	168.10	165.19	111.14	132.95	132.95	174.38	149.49	152.81
Hong Kong (59)	430.54	1.4	425.37	285.09	343.27	427.59	1.4	3.30	424.73	417.36	280.81	335.92	421.77	451.19	323.87	330.14
Ireland (16)	274.52	-0.9	271.22	181.78	218.87	249.22	-0.3	3.34	276.97	272.17	183.12	219.06	249.97	277.20	220.31	223.40
Italy (59)	83.20	1.0	82.20	55.09	66.34	97.22	1.2	2.19	82.37	80.94	54.46	65.15	96.10	83.87	67.22	75.63
Japan (481)	163.84	-0.5	161.87	108.49	130.63	108.49	-0.4	0.70	164.68	161.82	108.88	130.24	108.88	164.79	137.75	159.82
Malaysia (107)	584.79	1.2	577.76	387.23	466.25	561.66	1.3	1.55	577.88	567.85	382.07	457.05	554.69	584.79	425.77	474.33
Mexico (18)	1251.92	-0.5	1236.89	828.98	998.16	10203.64	-0.4	1.33	1258.15	1236.32	831.83	995.07	10241.27	1313.61	791.99	1005.41
Netherland (19)	288.00	-0.8	284.54	190.70	229.62	225.55	-0.0	3.13	290.33	285.29	191.95	229.62	225.55	291.80	237.16	244.71
New Zealand (15)	83.02	0.1	82.02	54.97	66.19	64.19	0.1	4.26	82.94	81.50	54.84	65.60	64.13	85.49	76.28	83.94
Norway (33)	251.34	-1.7	248.32	166.43	200.39	224.56	-1.1	2.31	255.75	251.32	169.09	202.27	227.04	255.76	215.04	224.85
Singapore (44)	441.91	0.4	436.60	292.62	352.33	286.32	0.4	1.33	440.23	432.59	291.06	348.18	285.19	465.21	355.81	370.08
South Africa (45)	370.89	1.3	366.44	245.59	295.71	350.41	0.4	2.01	366.06	359.71	242.02	289.51	349.04	437.76	338.91	351.58
Spain (37)	177.10	-1.5	174.98	117.27	141.20	170.89	-0.7	3.24	179.85	176.73	118.91	142.25	172.16	179.85	139.18	139.80
Sweden (48)	341.18	-0.6	337.08	225.92	272.02	343.32	0.2	2.32	343.08	337.13	226.83	271.34	342.65	352.28	250.83	255.60
Switzerland (38)	241.22	-1.1	238.33	159.73	192.33	186.14	0.0	1.57	243.81	239.58	161.20	192.83	186.21	252.34	184.11	167.22
Thailand (46)	176.90	0.6	174.77	117.14	141.04	173.36	0.7	1.89	175.82	172.77	116.25	139.06	172.20	193.95	145.43	145.46
United Kingdom (202)	232.68	-0.3	229.89	154.07	185.52	229.89	0.2	4.00	233.50	229.45	154.38	184.68	229.45	237.43	208.12	209.85
USA (626)	266.97	-0.0	263.77	176.78	212.86	266.97	-0.0	2.19	266.98	262.35	176.51	211.15	266.98	269.11	210.24	210.44
Americas (771)	243.96	0.0	241.03	161.54	194.50	205.03	0.0	2.19	243.99	239.75	161.31	192.97	205.06	245.54	192.82	192.94
Europe (720)	208.77	-0.5	206.26	138.24	166.45	185.46	0.2	3.00	209.83	206.20	138.73	165.96	185.13	211.35	181.77	183.91
Nordic (135)	293.39	-0.5	289.87	194.27	233.92	259.78	0.2	2.30	294.98	289.86	195.03	233.30	259.28	297.60	241.98	245.70
Pacific Basin (832)	176.50	-0.3	174.38	116.88	140.73	119.99	-0.1	1.11	177.01	173.93	117.03	139.99	120.18	177.01	148.86	167.04
Euro-Pacific (1552)	189.83	-0.4	187.55	125.70	151.35	144.86	-0.0	1.98	190.57	187.26	125.99	150.72	144.86	190.57	166.51	173.96
North America (725)	260.48	0.0	257.36	172.48	207.68	259.78	0.0	2.20	260.50	255.98	172.23	206.03	259.80	262.26	205.68	205.80
Europe Ex. UK (518)	190.61	-0.6	188.32	126.22	151.97	159.45	0.2	2.45	191.75	188.42	126.78	151.65	159.18	192.67	163.36	165.73
Pacific Ex. Japan (351)	295.72	0.7	292.16	195.81	235.77	255.39	0.8	2.89	293.65	288.55	194.15	232.25	253.48	295.72	237.71	240.15
World Ex. US (1742)	190.89	-0.3	188.59	126.40	152.19	146.23	-0.0	1.98	191.55	188.23	126.65	151.50	149.23	191.55	167.36	174.41
World Ex. UK (2166)	212.20	-0.2	209.65	140.51	169.19	178.42	0.0	1.88	212.60	208.92	140.56	168.15	178.45	212.60	179.23	182.71
World Ex. Japan (1887)	242.51	-0.1	239.60	160.58	193.35	230.71	0.1	2.50	242.77	238.56	160.51	192.01	230.45	242.93	200.28	200.45
The World Index (2368)	214.08	-0.2	211.51	141.76	170.69	183.14	-0.0	2.07	214.52	210.80	141.83	169.66	183.14	214.52	181.82	185.10

 CONSTITUENT CHANGES WITH EFFECT 3/5/96: Addition: UPM-Kymmene (Large Cap) (Finland). Deletions: Kymmene and Repola (both Finland). Latest prices were unavailable for this edition. Market closed 30/4/96: Netherlands.

MONTHLY AVERAGES OF STOCK INDICES

	April	March	February	January
FT-SE Actuaries Indices				
100 Index	3792.3	3697.5	3738.1	3715.8
Mid 250	4460.4	4267.8	4173.8	4064.1
350 Share	1912.9	1857.3	1864.3	1845.1
Non-Financial	2021.61	1953.49	1941.86	1919.92
Financial Group	2866.93	2837.38	2942.72	2915.37
All-Share	1892.47	1836.04	1839.78	1819.13
Eurotrack 100	1655.63	1597.90	1549.02	1529.63
Eurotrack 200	1711.78	1668.24	1653.97	1627.18
FT/S&P-A World Index	210.84	207.28	208.26	202.41
FT Indices				
Government Securities	92.46	92.61	94.00	95.68
Fixed Interest	112.00	111.22	112.72	114.47
Ordinary	2827.9	2760.9	2748.0	2749.6
Gold Mines	2331.35	2282.54	2380.24	2196.50
SEAQ Bargains (5.00pm)	39,051	38,859	32,296	33,753

	Highest close Apr	Lowest close Apr
FT-SE 100	3857.1 19th	3718.4 1st
FT-SE Mid 250	4568.6 26th	4326.9 1st
FT-SE 350	1945.4 19th	1871.2 1st
FT-A All-Share	1924.17 19th	1850.22 1st
Ordinary	2885.2 19th	2781.0 1st

هكذا من الأصل

new company

new logo

new name

new color (red)

new number

(former systems and technology
businesses of AT&T, plus Bell Labs,
with 125 years experience
in making the things that make
communications work)

TV SMART CARDS

The Sky algorithm that did not add up

An FT investigation by **William Lewis** raises questions over tax and management control within News group

For Professor Adi Shamir, one of Israel's foremost mathematicians, it was the breakthrough he had long worked for.

By 1980 he had, with others, developed a mathematical process, the Fiat-Shamir algorithm, which could be used in encryption systems to protect data.

The Weizmann Institute of Science, the academic institution in Israel where Prof Shamir worked, was keen to exploit the technology commercially through its company, Yeda Research and Development.

At first it was thought the encryption technology would be used only for bank transactions, information distribution and other security applications. But it became clear that it had another lucrative application – the restriction of access to satellite television broadcasts and pay television.

The success of the UK satellite broadcaster Sky TV – now 40 per cent owned by Mr Rupert Murdoch's News Corporation and called BSkyB – is based on Prof Shamir's system, known as VideoCrypt.

Smart cards are a vital part of News group's business. The encryption technology used by Sky is also used by Star, News's Asian digital pay television venture, as well as in several other TV ventures.

More than 3m UK homes have satellite dishes and smart cards which enable them to "unlock" channels they have paid for. Periodically a new set of cards is sent out to subscribers in an attempt to beat off the threat of piracy.

In the UK, most satellite subscription services use the News group-owned VideoCrypt system. Cable companies argue that BSkyB's dominance of the VideoCrypt technology has become a gold mine.

The technology is also said to be vital to Mr Murdoch's plans to expand News group's TV interests worldwide. Analysts have pointed out how smart cards would enable TV programmes to be vetted ahead of broadcast in countries such as China, where News group hopes to expand.

Alongside its evident success, however, the exploitation by others of Prof Shamir's algorithm has led to allegations by the News Corp group of fraud and a long-running conspiracy. The News group of companies is involved in several legal disputes, including one in the High Court in London.

Documents relating to the disputes, together with numerous interviews, have enabled the Financial Times to piece together the short but turbulent life of News Datacom, the conduit for smart cards from News group to BSkyB and others.

News Datacom's history has involved offshore companies, disguised payments to executives, private investigators and secret telephone recordings.

The findings raise serious tax questions as well as questions about internal management control within News group over several years.

News group says card sharps cost it £19m

News International, the main UK subsidiary of the News Corp group, claims *that it has lost more than £19m* as the result of a long-running "conspiracy" involving suppliers of BSkyB's satellite television smart cards, former employees and one of its own ex-directors.

The allegations

Details of the allegations have emerged in an action started in February in the High Court in London by four News group subsidiaries, including News Datacom, which arranges for the supply of smart cards on behalf of the group.

The losses claimed by News Datacom as a result of the "conspiracy" amount to £19,122,380, according to Mr Arthur Siskind, News Corp's general counsel.

News group companies claim that "the price paid by News Datacom for smart cards has been artificially inflated" as a result of a long-running conspiracy between Mr Michael Clinger, a former director of a *News group subsidiary*, Mr Meir Matatyahu, a former employee of News group, Mr Bharat Kumar Marya, a businessman, and several companies associated with him called the Marya companies.

They also allege that Mr Marya and the Marya companies received excessive profits, secret commissions have been received by Mr Clinger and Mr Matatyahu, and NDSP [News Data Security Products which traded as News Datacom] and News Datacom Ltd [the News group company registered in the UK which took over NDSP's business in 1992] have been prevented from putting in place any alternative source of supply of smart cards.

Mr Ian Rosenblatt, partner of Rosenblatt solicitors representing most of the so-called Marya companies, said: "There are questionable motives for the litigation. We are defending it vigorously. Obviously any conspiracy is denied".

Management issues

While News group hopes its High Court action will enable it to recoup its alleged losses from overcharging, the claim has led it to disclose embar*rassing details of how News* Datacom was managed over a number of years.

Former directors of News Datacom who were responsible for the company during different periods in which the alleged fraud took place, include Mr Richard Searby, formerly chairman of News Corp, Mr Peter Stehrenberger, a director of News International, and Mr Gus Fischer, who resigned as a director of News International in 1995.

Between 1988-92 NDSP was 60 per cent owned by News group but is now a wholly owned subsidiary of News International.

An FT investigation has shown how top News group executives oversaw a series of management decisions which left it wholly reliant on one group of suppliers for a crucial element of its TV interests.

News group claims that its managers' attempts were largely thwarted by the conspiracy. It admits that attempts to obtain a second source of supply failed and that it was forced to suspend those *attempts when its smart cards became hit by pirates'* imitations and it needed the Marya companies' help.

Issues of internal control are also raised by News group's allegation that Mr Bruce Hundertmark, the man it entrusted to help form and run NDSP and later appointed a News International director, had a secret deal with IDG, a minority shareholder and a company in which Mr Clinger has a beneficial interest, in relation to its 20 per cent holding in NDSP.

Sky had engaged Mr Bruce Hundertmark as a consultant in 1987 and he suggested News group should develop its own smart card system to restrict access solely to subscribers.

The beginning

Sky Television was Mr Rupert Murdoch's great gamble in the late 1980s. To win subscribers, the satellite channel would have to show popular programmes, particularly films. But Hollywood distributors were only prepared to do business if Sky could control access to its broadcasts.

On News group's behalf, Mr Hundertmark negotiated a joint venture with Prof Adi Shamir, a pioneer of encryption technology, and Yeda Research and Development, the company through which Weizmann Institute of Science, Prof Shamir's employer, commercially exploits new technology.

Yeda granted News an exclusive licence to Prof Shamir's algorithm in return for a combined 20 per cent interest in a joint venture, News Data Security Products. IDG took a 20 per cent stake. Just months before the deal, the US Securities and Exchange Commission, the watchdog of the US financial community, had taken action against Mr Clinger relating to his actions while at Endo-Lase, a bankrupt US medical equipment company.

While NDSP could handle the conceptual side of the VideoCrypt encryption system, it had to work with another company, Thomson Consumer Electronics of France, to provide necessary decoder hardware.

The first batches of smart cards were bought from Gemplus Card, which was one of only a small number of smart card producers. News group claims that "Mr Hundertmark therefore suggested that NDSP should set up its own factory to manufacture them."

In a joint venture between NDSP and Gemplus in Livingston, Scotland, a factory was established a few hundred yards from Sky's subscriber management centre. The joint venture was called News Gem, a Hong Kong company registered in Scotland as an over*seas company.*

From late 1989 until June 1991, News Gem used the plastic cards and module assembly supplied by Gemplus, and assembled and tested the smart cards. News group claims that its intention was *for News Gem to manufacture* the micromodule and microchip which were inserted in the module assembly, and thus produce complete smart cards.

Hundertmark

In January 1989, with News group apparently unaware of Mr Hundertmark's alleged "secret arrangement" with Mr Clinger, Mr Hundertmark became an employee of News International (NI), and one month later was appointed an executive director.

Within a year, however, Mr Hundertmark began to suffer health problems and spent more time in Australia, according to Mr Peter Stehrenberger, NI's company secretary. It was *decided that Mr Hundertmark* should be asked to leave, he states, and on May 18 1990, he resigned as a director of NI and NDSP.

Only after his departure, News group says, did it come to light that between March and April 1990 Mr Hundertmark had entered into five distribution contracts, including one with Catalyst – an alleged member of the conspiracy – on behalf of NDSP, allegedly contrary to what had been agreed by the NDSP board.

News group claims that once NDSP found out about the contracts to distribute smart cards, steps were taken to renegotiate their terms.

Responsibility for renegotiating with Catalyst was given to Mr Clinger, and a new agreement was entered into in August 1990. News group claims it did not at that stage know that 60 per cent of the shares in Catalyst were beneficially owned by Mr Clinger.

The reliance of NDSP on the Marya companies increased further at about the end of 1990 when News group contracted PMI, connected with Mr Marya, to start supplying smart cards to NDSP.

Livingston

Within months, News group claims, the Marya companies had turned this into an exclusive supply arrangement. One of the main reasons was the decision taken by the NDSP board in June 1991 to cease assembly of smart cards at the Livingston factory, which would have enabled the News group to produce complete smart cards. Instead programming of the cards was to be carried out at the NDSP *facility in Maidenhead*, Berkshire.

In its legal action News group blames Mr Clinger. Mr Siskind claims that other NDSP directors were swayed by the arguments Mr Clinger put forward.

News group now claims that Mr Clinger's ulterior motive in making this argument was his alleged beneficial *interest*, through a web of offshore companies, in 60 per cent of PMI, hence his desire to put PMI, a Marya company, in place as a key source of smart cards supplies.

News group alleges that PMI, an offshore company incorporated in Liberia operating from Jersey and with bank accounts in Guernsey, has been used as a vehicle for the receipt of payments from News Datacom.

Money received by PMI has allegedly been disbursed to four companies, two controlled by Mr Clinger and two by Mr Marya.

Such was the force of Mr Clinger's argument, apparently, that it was accepted by NDSP and the News group.

Nevertheless, just months later – by Autumn 1991 – News group states that it had decided it would have to replace Mr Clinger if the business was to survive. He had become extremely difficult to work with and News group *states that it had also decided* to buy out the 40 per cent shares in NDSP it did not already hold.

The buy-out

Due diligence was undertaken, News group says, but it failed to uncover the alleged conspiracy.

News group admits that the gathering of information was made difficult because there was no central record keeping function. It also states that the responses given by minority shareholders, in particular Mr Clinger, to requests for information were inadequate and incomplete.

Despite these problems, in May 1992 the buy-out agreement was signed and in July it was completed. News group paid $13.2m to buy out by the 40% minority shareholders in NDSP, and News Datacom Ltd (NDC), a UK company and News group subsidiary, then took over the business.

News group states that $5m was paid to IDG, the Netherlands Antilles company, for its shares in NDSP, plus a further $510,000 under a "consultancy and fair competition agreement". It was also agreed that *further funds would be paid to* IDG over a five-year period based on the revenue received by News group. Warranties were obtained from Mr Clinger as part of the deal, News group states. Mr Hundertmark is now claiming that he is entitled to part of IDG's pay out.

"Conspiracy"

The 1992 buy-out and departure of Mr Clinger did nothing to stop the alleged conspiracy and the dependence of NDSP and NDC on the Marya companies for the supply of smart cards, News group claims.

NDSP *and subsequently* NDC were, in effect, locked into a relationship with the Marya companies whereby in practice they had very little control over the terms on which the cards were supplied and the price they were paying, News group claims.

The production process *involved microchips bought by* NDSP and NDC direct from Motorola of the US, and subsequently from Siemens, being *provided to the Marya compa*nies. Once the cards had been assembled by the Marya companies, *they were shipped to PMI in Jersey* and from there they were sent on to NDSP and NDC in Maidenhead, and later *to premises near Heathrow, for* programming.

News group believes Mr Clinger continued to play a part in the conspiracy even after the 1992 buy out. Mr Matatyahu, appointed head of operations and logistics manager in February 1992 with primary responsibility for the purchase of smart cards, *also* became involved, News group claim, frustrating NDC's efforts to find a second source of supply.

However, News group admits it has failed to identify with certainty how Mr Matatyahu has been receiving his alleged commission. Its belief that Mr Clinger has been involved in a *conspiracy against it has been* followed by the group's not completing payments to IDG under the 1992 buy-out agreement. Arbitration on the row in London has been requested.

Parts of the conspiracy allegations are said to be corroborated by transcripts of tape recordings provided to News group by Mr Leo Kreiger, NDSP's former chief financial officer.

In its High Court action, News group details how attempts it made to locate an alternative source of supply were hampered by its managers' lack of relevant expertise.

Mr Arthur Siskind, News Corp's general counsel, states that the management of News Datacom in Maidenhead to whom Mr Matatyahu reported did not have the technical expertise to challenge Mr Matatyahu.

Anyway, efforts to find an alternative source of smart card suppliers were put on hold when a more immediate threat to its business emerged – pirates gaining access to Sky's transmissions illegally. To beat this threat, the group needed co-operation from the Marya companies, which it got.

Later in 1994 efforts made by News group "*to find a second* source met with great hostility from Mr Marya who threatened *to withhold supplies of cards*", Mr Siskind says. News group says it now has a number of smart card suppliers.

Dark tax affairs in a corner of Rupert Murdoch's empire

Internal documents from News *Data Security Products*, a Hong Kong-registered company which oversaw the development and production of the smart card used to prevent the piracy of satellite broadcasts, give a rare glimpse into the tax affairs of an important corner of Mr Rupert Murdoch's corporate empire.

The level of tax paid by News Corporation, the group's parent company, and its subsidiaries, has long been a controversial issue. The NDSP documents seen by the FT throw some light on this.

Documents show how the company's operations and accounts were structured to minimise the revenues reported to tax authorities in Israel, where its wholly-owned subsidiary News Datacom Research (NDRL), was based and carried out *its* business, and also in the UK where the company has also carried out activities.

The structure led to NDSP, in which News group held a 60 per cent stake, being liable for tax in Hong Kong, where it was registered. NDSP traded as News Datacom and that became its official name after News group took 100 per cent ownership in 1992 through a UK registered company called News Datacom Ltd.

The documents also show how remuneration to NDSP executives was paid, out of Hong Kong, to a variety of foreign bank accounts. Executives had some of their remuneration *paid as consultancy fees*, but booked as directors fees in the accounts.

NDSP bought R&D services from NDRL on a so-called "cost-plus" basis, but in a letter written in July 1991, Mr Leo Kreiger, the then chief financial officer of NDSP, says: "When NDSP and NDRL were established, it was recognised that *certain steps were required in order* to distance NDC (NDSP) revenue from Israeli income tax."

Mr Kreiger said the method used for recording "projects" and "costings" did not have any significance other than for Israeli income tax purposes. "They are primarily developed to allow for appropriate timing of reporting revenue to the Israeli income tax authorities to result in negligible profit."

Mr Kreiger says "these are tax avoiding (as opposed to tax evading) devices" and that "Arthur Andersen *[auditor of News Corp] does not* even review these documents". News group has agreed to pay Mr Kreiger, who last year was questioned by the Israeli Revenue about his personal tax affairs, in return for his "assistance in analysing and providing information" in relation to its High Court action.

In another memo dated February *1993, Mr Kreiger is said to have* warned Herzog, Fox and Neeman, News Datacom's lawyers in Tel Aviv, that a former company employee who knew of the "company's tax planning" could "approach the tax authorities in Israel with this information".

Herzog's note of the meeting states that at the financial year end the employee, known as Yagel, "had to retroactively determine how much value was to be attributed to each project done during the past year to achieve economic results as *close as possible to the objectives of* almost no profits for NDRL".

Other internal NDSP documents raise questions about the tax jurisdiction in which management and control of the company took place, crucial in determining where it should be liable for tax.

Mr Kreiger told Mr Gus Fischer, then a director of News International, *whose parent company is* News Corp, that "management and control was not exercised from the UK" in discussions about the tax status of Mr Bruce Hundertmark, the former director of News International facing action in the High Court.

Mr Kreiger, in the memo dated June 1990, discussed how the location of senior executives of News Datacom residing in the UK "and being responsible for company sales activities", could mean that "NDC [NDSP] would be exposed to Inland *Revenue claims of NDC [NDSP]* trading from and in the UK".

Mr Avi Alter, a leading tax expert in Israel, concluded in a report dated October 1995 that the "foreign control" of NDSP was "merely a façade, and the actual management and control of NDSP were based in Israel".

With Mr Kreiger stating that *management and control was not in* the UK, Arthur Andersen stating, in another document, that management was not in Hong Kong, Mr Alter says: "Since management must be centred somewhere... the 'nerve centre' of NDSP must be deemed to be in Israel."

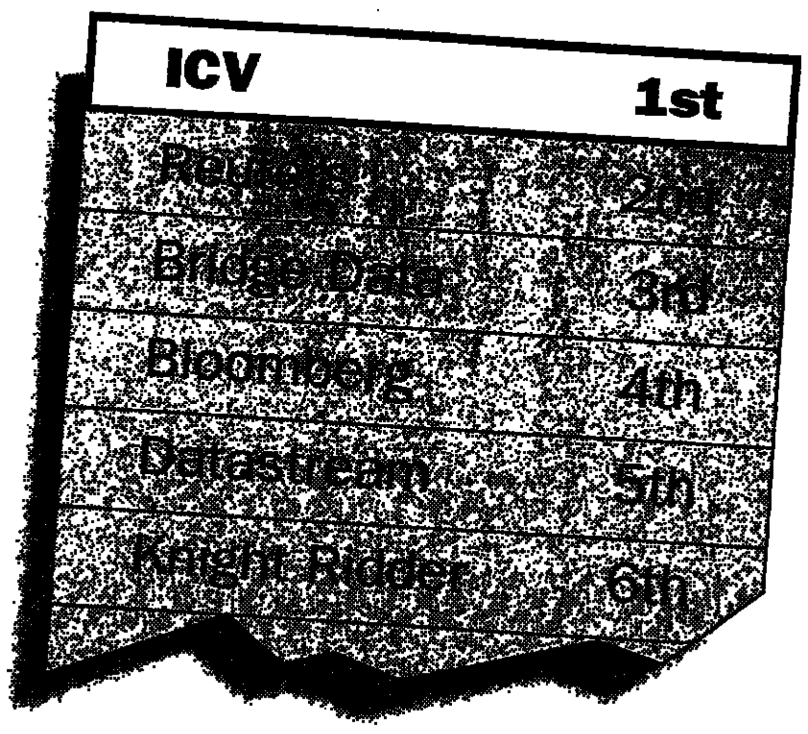
Mr Alter, who as News group points out does not state who commissioned his report, concludes that NDSP is liable for Israeli tax on its income from all of its activities during the period in question.

News group, through Herzog, strongly denies Mr Alter's conclusion and says management and control was outside of Israel and it was not liable for tax there.

Herzog says "the description of the facts is clearly slanted against NDSP" and "it is highly prejudicial to NDSP's interests". *The response* also says that NDSP was established in Hong Kong for "valid business considerations". *Throughout* the relevant period NDSP had "accumulated losses and the whole question of its Israeli tax liability is therefore academic".

Serious questions also arise over the recording of payments to directors of NDSP.

A letter written by Mr Bruce Hundertmark, then a director of NDSP and also of News International, to Mr Daniel Doo, NDSP's secretary in Hong Kong, dated August 16 1988, states: "As you are aware from the last NDSP board meeting in Hong Kong, there was unanimous agreement to pay certain individuals consultancy fees as part of their remuneration." He told Mr Doo NDSP directors had agreed to "book these payments as directors' fees and not as consultancy fees, therefore there should be no additional record of these payments".



The 1996 UK Dealing Room Survey *
- Kimsey Consulting Ltd.

Now our customers have really put us in our place.

Thank you. It's always gratifying to be rated number one, especially by your customers - and ahead of such convincing competition too.

However, apart from a brief moment of self-congratulation, our real purpose is to reaffirm the standards against which ICV is always ready to be judged.

We work harder to understand the changing financial markets in which you have to operate and compete. We harness the appropriate technology to turn that understanding into innovative and reliable products - relevant to your needs and delivered on time at the right price, all backed by a total commitment to customer support. At the same time we aim to remain open, friendly and responsive, even fun to do business with. This way we build enduring relationships that in the long term are the most mutually rewarding.

TOPIC 3 Terminal
TOPIC 3 Trader
TOPIC 3 Workstation
TOPIC 3 Feed
TOPICLINE 3
Market-Eye

Topic 3 and **Market-Eye** deliver real-time equity prices and news to customer screens. ICV also develops electronic trading systems linking client to broker, broker to exchange and front to back office.

All familiar claims we know, but at ICV they're sincerely made.

If you're not yet one of the customers who rank us number one, please let us know why (call 0171 398 1000 and ask for David Taylor, Managing Director). We'd appreciate the opportunity to change your view.

And even if you do put us first, we'd still like to know where you think we can improve. That's how we intend to keep our place.

ICV LIMITED

* *Source: The 1996 UK Dealing Room Survey - Kimsey Consulting Ltd. ICV - Voted top information vendor in the overall User Satisfaction Ratings. This is how we achieved it: 1st for Value for Money, 1st for After Sales Support and Maintenance, 1st for Speed of Information Update, 2nd for Reliability of Vendor Hardware. 2nd for Breadth of Information, 2nd for Reliability of Data Transmission, 2nd for Staff Attitude, 3rd for Quality of Support Manuals, 4th for Quality of Analytics. ICV was also ranked Most Improved Vendor. This is only the 2nd year that ICV have been included in this survey. The survey covered seventeen information vendors.*

ICV Limited, Skandia House, 23 College Hill, Cannon Street, London EC4R 2RA Tel: 0171 398 1000 Fax: 0171 398 1001 E-mail: mktg@icv.co.uk Offices in: Glasgow, Birmingham, Cambridge, London, Bristol and Woking

TECHNOLOGY

Getting a good hearing

Take the kind of sound mixer found in recording studios, digitalise the operation, put it on a chip measuring less than half a centimetre square and you will have the making of a good hearing aid.

This, roughly speaking, is what two rival Danish hearing aid manufacturers, Oticon and Widex, have done. A third Danish company, Danavox, is expected to follow in their footsteps shortly.

Oticon announced last autumn that it would be launching a 4.5g behind-the-ear digitalised hearing aid in the spring of 1996. Then last week Widex presented an in-the-ear device weighing just 1.5g, including a battery with a working life of 165 hours. Jan Topholm, Widex chairman, says the company expects to produce between 50,000 and 100,000 of the new aids within the first year. Whichever device is chosen by users, the Danish companies have stolen a march on their international competitors.

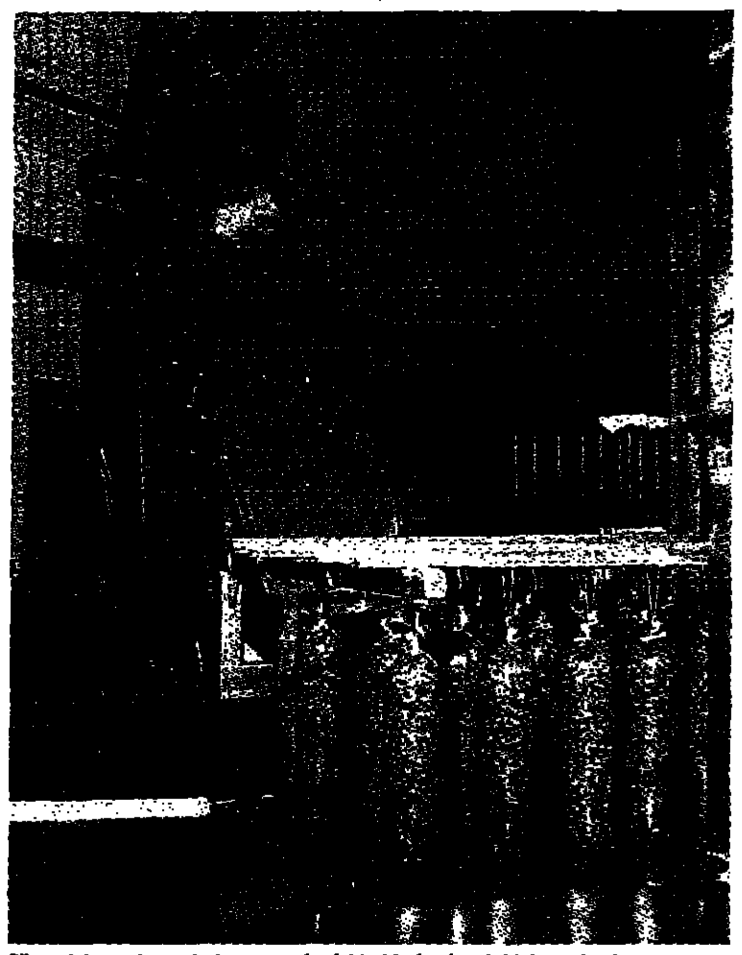
The Widex aid, called Senso, is based on a proprietary chip developed by the company in co-operation with an undisclosed international chip manufacturer. The chip samples sound received at the rate of 1m samples per second. It processes and redistributes the sound to the wearer of the aid at a rate of 32,000 20-bit "words" a second.

Digitalisation means that the device can be programmed, rather like the recording studio sound-mixer, to suppress background noise and to recognise and enhance the speech of the person the wearer is talking with.

Widex claims that it has been able to eliminate whistling, which is caused by an acoustic feedback loop (the microphone picks up the sound being broadcast by the hearing aid and rebroadcasts it). The aid itself measures hearing loss and programs automatically for optimal compensation, so the wearer does not have to adjust the device.

Hilary Barnes

ROBOTICS AT WORK



Slice of the action: robots are rarely sighted in food and drink production

Food processors are coy about automation, says **Roderick Oram**

Secret ingredient

As far as robots are concerned, icing a cake should be as easy as sealing a car windscreen. Both jobs require them to squirt a viscous liquid in complicated patterns. But while robots are familiar tools to carmakers, they are near-strangers to food processors. There may be fewer than 20 sophisticated examples in the UK and most are used in packaging and warehousing rather than food preparation, according to the British Robot Association. Use on the Continent is wider but still limited.

Two crucial factors have inhibited robot penetration of food preparation, says Peter Wallin, head of food engineering and manufacture at Leatherhead Food Research Association near London. First, people are reluctant to invest, he says. Food manufacturers survive on notoriously thin margins and have little difficulty hiring unskilled staff at pay rates as low as £100 a week.

Second, many food manufacturers "lack a vision for manufacture and how it relates to profitability", says Wallin. They are focused instead on developing their rapidly changing products and markets. They also tend to be weak on technology because they have cut their staffs or had their fingers burnt on high-tech projects in the past.

To explore these issues, Leatherhead and the Ministry of Agriculture, Fisheries and Food hope to attract 100 delegates to a one-day seminar on food robotics at Leatherhead on June 7.

"It is difficult to find food people who openly admit they have got a robot and that it works. They want to keep it a secret," says Bob Lloyd, chairman of the BRA and project manager of the food division of Intelligent Systems, a robot and systems integrator.

Those who have made them work keep very quiet because of the potentially huge productivity gains. In the food industry a small manufacturer can rapidly gear up to be a big one if it can devise an innovative or cost-effective product. Among big processors, Unilever, Nestlé and Mars are widely rumoured to be keen developers of robots but so competitive an issue is it that they barely acknowledge their interest in the machines.

Big breakthroughs have tended to come in highly concentrated, big and competitive sectors, typically where they dominate a nation's agribusiness. Thus robots butcher sheep in New Zealand, slice pork in Denmark, fillet fish in Iceland, pack chocolates in Switzerland and make schnitzels in Germany.

The British must be a nation of cake and biscuit eaters because that is one area where the cost-benefit equation of robots is beginning to show enticing results as equipment improves and experienced is gained.

"We are probably about a year away from finding the right cost solution," says Paul Kitchener, operations director of McVitie's, the United Biscuits subsidiary. His goal is to develop a robotic head with visual recognition powers that could be used widely across the group. McVitie's already has one packaging cheese biscuits and is about to install a second to delicately pack custard products.

Similarly, Fox's, Northern Foods' biscuit subsidiary, is using simple robots without image definition to help pack assortments of biscuits.

But it is still people that insert the trickier items into the tins and do the final inspection. Gary Glover, general manager of Fox's Kirkham factory, readily acknowledges this use is closer to mechanical handling than true robotics but he is seeking more sophisticated applications. "We are all keen but with an eye on the commercial aspects."

Robots are making inroads in more technical areas of food preparation. Affordable Automation of Manchester used CRS robots from Canada, for example, to automate nuclear magnetic resonance spectroscopy testing of food samples for a leading processor. It also offers a CRS robot skilled in icing but so far has no UK takers, says Tony Evans, managing director.

"The payback is coming down to two or three years," says David Bennett, manager of the food sector for ABB Flexible Automation, a subsidiary of the Swedish-Swiss group which began its food thrust less than three years ago. Prices can start at about £100,000 for a single robot on a single packaging line. ABB stresses that robots have a high residual value. They come with three years' free maintenance, have a long life and users can easily move them to other tasks if their needs change.

ABB and other robot makers also stress operational benefits such as the control and information that robots bring to the use of ingredients, particularly seasonal ones, in food processing.

The tough technological challenges lie ahead, however. The food industry should be ideal for robots. Many tasks in food preparation and packaging are repetitive but the orders can be small and intricate. One supermarket might specify, for example, that six slices of pepperoni are arranged in a circle on its own-label chilled pizzas while another calls for eight slices in lines.

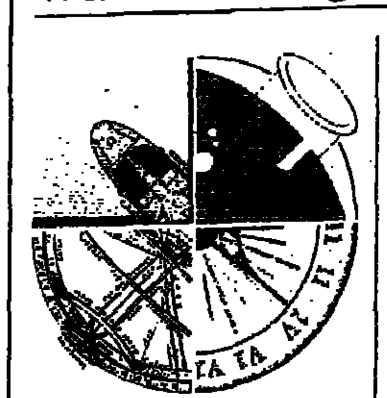
A chilled pizza line today might have highly automated dough making and baking and dispensing of cheese and tomato pastes, but downstream scores of people place the toppings. Similarly, hundreds of thousands of fresh sandwiches are made in factories each day but by hand.

Fresh foods present particular challenges with health and safety regulations working largely in robots' favour. Pizzas and sandwiches, for example, would have a longer shelf life if they were made in a near freezing, deoxygenated atmosphere. But they can also replace humans in less hostile but still unpleasant environments such as a cold abattoir. An occupational hazard for butchers is repetitive stress injury caused by wielding knives in low temperatures.

But these are the very applications where robots still need a lot of adaptation from their car industry forebears. Some already ice a cake in 15 seconds or slice chicken breasts in moments but more speed and dexterity is needed. Moreover, strict hygiene standards require easy cleaning of, say, stainless steel robots in a pristine environment far removed from a car line.

Until robot makers and systems integrators find cost-effective solutions to these difficult tasks, food processors are likely to remain heavily dependent on cheap labour.

Worth Watching · Vanessa Houlder



Robots lend a hand in prostate surgery

A robotic device designed to help surgeons carry out prostate operations is likely to begin clinical trials in the coming months.

Prostate operations involve the painstaking paring down of tissue over a period of up to 90 minutes. By making the task less taxing, it is possible that surgeons could perform more operations during the day.

The robotic device could make the operation less tiring because the surgical instrument would be manipulated using a hand-held joystick. Future developments could include an ultrasound imaging system to guide the surgeon on how deeply to cut.

The system was developed by Dryburn Hospital in Durham and Labman Automation in Stokesley and demonstrated at last week's Institute of Physics conference.

Institute of Physics: UK, tel (0)171 470 4800; fax (0)171 470 4848.

Daimler's stripey defect detector

Daimler-Benz, the German carmaker, has improved its ability to detect defects in car parts, by using an optical technique that involves shining a pattern of stripes on to the metal.

The pattern, which is monitored with a video camera, will appear distorted even if the surface is only a few hundredths of a millimetre out of line. Even smaller rough spots can be discovered by using a computer.

Daimler-Benz: Germany, tel 7111793039; fax 7111794365.

Copyright on electronic pictures

As electronic distribution becomes more common, picture libraries and news agencies have a growing need to protect their copyright on still and moving pictures.

CRL, Thorn EMI's former central research laboratories, has found a method of introducing a "watermark" into the image. Its technique of "visual masking" involves introducing a unique code, known as a Visually Embedded Code, into the image in such a way that it cannot be removed from even the smallest sample of the image.

CRL: UK, tel (0)181 848 6661; fax (0)181 848 6682.

PCs built with recyclable casing

The difficulty and cost of disposing of obsolete computer equipment is rising as the normal "life cycle" of business personal computers gets shorter, *writes Louise Kehoe.*

To cut disposal costs and help safeguard the environment, Dell Computer has introduced a PC chassis made entirely of recyclable materials. It is made of a durable plastic that is free of coatings or fillers that normally prevent recycling. The structure is supported with preplated cold rolled steel, which can be separated quickly with the twist of a screwdriver. The plastic is identified and marked in accordance with international ISO standards.

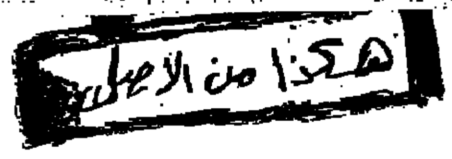
Information on Dell's World Wide Web site, http:\\www.dell.com

Satellites at risk from the sun

The UK's Defence Evaluation and Research Agency has found "conclusive evidence" that many satellites are at risk from electrostatic discharges while in orbit. The researchers' aim is to find a way to protect future missions against these internal charging effects which can result in hugely expensive satellite failures.

Satellites could be particularly susceptible early next year when the 11-year solar cycle of activity on the sun's surface reaches a minimum. At this time, electrons penetrate thin coverings of the satellites and produce a dangerous build-up of charge. The researchers identified a microelectronics circuit that was especially susceptible to charge build-up.

Dera: UK, tel (0)1252 394627; fax (0)1252 394571.



ARTS

Cinema/Nigel Andrews

Dirty Dozen in Tarantino-land

If there were a "best title" Oscar, *Things To Do In Denver When You're Dead* would vanquish all opposition. Ascending the stage in spotless tuxedos, the makers would clasp the gold statue and thank the following. The city named Denver for conjuring by its very sound a pluperfect provincialism; the alliterative rhythm of "dead" and "Denver", suggesting interchangeable concepts; and the iambic brio of the whole phrase, which could come from Shakespeare via Chandler and Tarantino.

The film is as good as its name. First-time feature director Gary Fleder steers a dream cast through dream dialogue, written by fellow debutant Scott Rosenberg, while a crazed visual elegance transforms the plot about five semi-retired hoodlums bungling – fatally – a last simple assignment.

Our hero is gangster turned "afterlife advice" manager Andy Garcia, who video-records dying people's counsel to their surviving loved ones. When he takes a day off work to help crippled crime boss Christopher Walken, it proves to be less a day, more a lifetime. Walken's retarded child-molesting brother was about to be saved by the love of a good woman when the girl fell for a passing playboy. Frighten the playboy off!, hisses Walken. And he glowers through corpse-like cheeks with the little energy left from mouth-steering his wheelchair.

You may guess what happens. Rainy night road; blinding lights; boy pulled up by Garcia's cronies dressed as fake patrolmen. Then the unexpected flash of knife, the unplanned gunshot. Exit in all directions the cronies. Since these include a nervous porn film projector (Christopher Lloyd), an overweight black pest controller (Bill Nunn), a trailer-dwelling down-and-out (William Forsyth) and a morgue-working ex-boxer (Treat Williams) who uses dead bodies as punchbags, you understand that they will follow any signpost that says "Trouble and disaster".

Disbelief is suspended early on. We spend a mere pedantic minute or so wondering why a well-oiled smoothie like Garcia, who has applied to his hair all the unguent he does not use in his speeches, would even *think* of employing these brain-deficient henchpersons. Or why he goes back to Walken after the botched job, as if to tickle the tummy of his own nemesis.

No: having decided on a plot reminiscent of a discount *Dirty Dozen*, Fleder and Rosenberg run with its vast surreal potential. This is clearly Tarantino-land, where style knows no morality, apocalypse needs no logic (or not much) and the vernacular is as rich as the reek of crime.

Gormless hit men use words like "specious" and "anon". ("Gus has been reading the dictionary" explains his partner). Choice terms include "faeco-freak", "mammy rammer" and "buckwheat": the last meaning that you have disappointed the boss and are about to be threshed by a slow death. And Jack Warden almost steals the film as a mangy chorus figure, explaining the story's jargon from his diner-table. This glorious actor, with his echo chamber voice and raddled lion face, might have wandered in *sans* costume change from playing Tiresias in Woody Allen's *Mighty Aphrodite*.

The film finds time, but shouldn't have, for two love subplots. Garcia vacillates between high-class beauty Gabrielle Anwar and hooker Fairuza Balk. Both women come wearing signs, the "chance of a better life" and the "tart with a heart": which is a shame in a film that everywhere else resembles a maze you never want to find your way out of, even if you should accidentally stumble on its notional centre.

★

One of the things not to do in Denver, even if dead, is see *Mary Reilly*. Director Stephen Frears and screenwriter Christopher Hampton may have viewed this project as "Dangerous Liaisons Two": another study in *outré* eroticism from the team that brought us Glenn Close and John Malkovich as the Laclos-based fancy dress sex-adventurers.

Both actors are back, she in a bosomy vignette as a Victorian brothel keeper, he as Dr Jekyll and Mr Hyde. The source novel is Valerie Martin's re-telling of Stevenson's horror yarn from the viewpoint of Jekyll's servant maid, played by Julia Roberts. Ergo, it is *Wide Sargasso Sea* or *Rosencrantz And Guildenstern Are Dead* by another session of Virtual Plagiarism.

The through-the-keyhole approach results in a visual perspective almost as cramped and frustrating. Cinematographer Philippe Rousselot's low lighting and designer Stuart Craig's doom-grey interiors stifle what small life there in the two main performances. We hesitate to say "three" since Malkovich's monster is distinguished from his medico by little save long hair and a whinier snarl.

Roberts, meanwhile, seems like a girl lost without her hoop in an Edward Gorey horror strip. The fey, etiolated performance is unhelped by an accent that moves around the British Isles like a backpacker searching for a vacant B-and-B.

The film's crypto-sexual psychopathology is just as vagrant. We begin with Freud: a thrashing eel brought to the kitchen and skinned before our eyes. We pass through R.D. Laing: "I am the bandit, he is merely the cave in which I shelter" says Jekyll of Hyde. And we end with *Alien* as – but no, if you sit through this movie you might as well have the slim reward of its shock-horror climax.

★

Hackers is about the exciting time you can have if you are young and insomniac and own a computer. Every time you draw back your bedroom curtains after a hard night's surfing you will be set upon by the Internet's answer to Interpol: at least according to this rock-scored, lollipop-coloured thriller directed by Iain *Backbeat* Softley. The said cops will rush out with guns and gats and haul you off for a hard day's questioning.

Why? Because you have just tapped into a millionaire's Swiss bank account and/or the secrets of the universe and/or the minutes of the story conference that produced this insanely brainstorming film.

You have to warm to a movie that has 11-year-olds committing major industrial sabotage and that never walks when it can run, leap, dance or rollerskate. You have to warm to it, although I am not sure you have actually to see it: at least until it becomes a CD-Rom and you can watch in the comfort of your own snug, police-surveyed bedroom.

Pamela Anderson Lee – the last name has been pinned on her for services to *Baywatch* and in recognition of her desire to change identity for a feature career – is an extraordinary presence in the sci-fi thriller *Barb Wire*. The eyes try to find a personality, but are hopelessly detained by the accoutrements.

As with Dr Jekyll there are two of everything, though here they are more viewer-friendly. The leather blouse struggling to stay buttoned I willingly understand. Obviously in the year 2017, in a post-nuclear society, you cannot find a reliable dress shop. But the enormous pouting lips and the ditto derriere are beautiful mysteries. How does she speak lucidly through the first or sit down, in tight dresses, with the second?

That there is a film, and a fairly appalling one, attached to this phenomenon seems academic. *Barb Wire* is for all those who thought that Jayne Mansfield was dead and that silicon and collagen, those miracle twins, could never bring her back for us.

THINGS TO DO IN DENVER WHEN YOU'RE DEAD
Gary Fleder

MARY REILLY
Stephen Frears

HACKERS
Iain Softley

BARB WIRE
David Hogan

As good as its name: Andy Garcia and Treat Williams in 'Things To Do In Denver When You're Dead'

Broadway comes to the Proms

The 1996 Proms, which open at the Royal Albert Hall on July 19 with a performance of Haydn's *The Creation*, have a new director in Nicholas Kenyon, the controller of Radio 3. But the formula of the most successful music festival in the world stays much the same: in Kenyon's words, "a combination of quality and popularity".

There are no great themes, but one of the under-currents running through the record number of 72 proms, all to be held this year at the Albert Hall, is creation and re-creation – composers looking back to their mentors. So there is Stravinsky re-interpreting Tchaikovsky; and Elgar, Bach. There is also a spread of "Te Deums", from Haydn, Bruckner (well featured this year), Dvořák and others.

Kenyon is taking a more liberal view of the Last Night junketings than his predecessor, John Drummond, who wanted a subdued, respectful audience. "I'm in favour of a spirit of genuine celebration", although in the first half there will be a London première for Poul Rruders' "Concerto in Pieces".

In all there will be 25 new works performed at the Proms, including five BBC commissions. Kenyon is keen to present music that for some reason has been overlooked by the Proms, ranging from a Bach Mass to Stravinsky's "The Flood". Among other innovations will be the music of Duke Ellington; a late-night Prom of Broadway songs; and a linked series of chamber music concerts. Another novelty is a Schools Prom.

There are some interesting curiosities in the concert performances of opera, including the five act Italian version of Verdi's *Don Carlos* performed by the chorus and orchestra of Covent Garden under Bernard Haitink; a rare performance of Beethoven's *Leonora*, his precursor of *Fidelio*; and an even rarer revival of Kurt Weill's *The Silver Lake*.

Among the orchestras visiting the Proms this year are the Berlin Philharmonic under Claudio Abbado; the Chicago Symphony with both Solti and Barenboim and the New York Philharmonic with Kurt Masur.

There will be plenty of early music, Indian music, and lots of Spanish music to celebrate Falla, who died 50 years ago, and Gerhard, who was born 100 years ago. Ticket prices are the same, or only marginally higher, than a year ago, and a season ticket for all Proms at £130 (standing in the arena) must remain one of the best bargains in the arts.

Amid all the concern that classical music is in decline audiences for the Proms remain surprisingly healthy: 81 per cent of capacity last year, a year which was dedicated to new music. The Proms remain the pride and joy of Kenyon and the BBC.

Antony Thorncroft

Goya shortchanged in Madrid

Tom Burns reports on bungled attempts to cash in on the 250th anniversary of the artist's birth

In a rare one-man performance, it will be death on a Goya afternoon today in Madrid's bullring. José Miguel Arroyo, a serious young man and a gifted matador who fights under the name of Joselito, is scheduled to kill all six bulls selected for the corrida and he will dress up for the occasion not in the tight-fitting "suit of lights" worn by modern-day bull-fighters but in the loose 18th-century costume that was the norm in Goya's day.

Joselito's macho gesture – in a normal corrida three matadors kill two bulls apiece – and his sartorial choice will probably be one of the few events that Francisco de Goya would approve of amongst those that are being staged to celebrate the 250th anniversary of his birth.

Goya tried his hand as a matador and the bullfight continued to excite his artistic imagination throughout his life. Today's corrida commemorates Madrid's abortive uprising on May 2 1808 against Napoleon's invading troops, an event that moved Goya to paint two giant canvases which hang in the city's Prado museum.

But the artist would not be impressed by a string of minor exhibitions and musical evenings that are being organised to cash in on his anniversary year and he would be scornful about tacky merchandising such as tours of his supposed haunts and special Goya restaurant nights modelled, one fears, on "medieval" banquets.

The chief platform of what has been grandly called the *año de Goya* by the ministry of culture is an exhibition in the Prado that has been hailed by its organisers as the biggest ever Goya show. The exhibition would infuriate Goya and it has already been savaged critics.

Writing in El País, the influential Madrid newspaper, Francisco Calvo Serraller, a former Prado director, called the exhibition a "nullity" and loftily denounced a bare-faced commercial attempt to "exploit culture by tricking the public at Goya's expense."

Swindle is alleged because all of 130 of the 170 Goyas picture in the exhibition, including all the best pictures, already belong to the Prado where they are permanently hung and, indeed, often better hung than they are in the anniversary show. Arranging the exhibition has meant repositioning some canvases into areas of inferior lighting.

In an obvious sense the exhibition is a rip-off because, assembled as they are in the anniversary show, it now costs Pta1000 (£8) to see the Prado's Goyas whereas they can at normal times be viewed for Pta400, which is the museum's entry price. The Prado itself has in the meantime been wholly stripped off its Goya collection while the exhibition lasts.

The "nullity" charge is a serious one and critics have raised it on at least three levels. No attempt has been made to restore less than well preserved Goyas for the exhibition or to re-assert the authenticity of those that could be considered dubious; the exhibition includes only a handful of works from other museums and from private collections and none of them are judged to be "show stoppers"; and no attempt has been made to place Goya in any kind of context either by exhibiting his work with those of his contemporaries or by exploring his debts to earlier painters and his legacy to those that succeeded him.

The awful truth is that the *año de Goya* is the product of last minute rush and improvisation. The decision to hold an exhibition at all in the Prado was taken a scarce six months before it was due to open. Given the extraordinarily tight time frame it is remarkable that the Prado managed to obtain any extra Goya paintings at all for the anniversary show.

Goya: the Prado Museum, Madrid, until June 2. International reservations may be made on 34-1-537 6200.

Theatre

'Mules' under threat

The "mules" who crop up in the news now are drug-couriers, needy people who agree to fly from some third-world country to a western capital with a load of cocaine or heroin.

The pay is derisory, compared with the profits that a successful trip will make for the real dealer; the risks are great, for the couriers usually carry the drugs not about their persons but in them (you cannot plead that you never knew they were there), and the penal sanctions are severe.

Winsome Pinnock's new-ish play, *Mules*, at the Royal Court's studio theatre is about three such people, young Jamaican women. She "researched" it while resident in Holloway women's prison for the Clean Break Theatre Company (who put it on first), and elsewhere in the UK and in Jamaica. The result is interesting to watch, and disarmingly performed; but not, I think, a very good play.

Mules offers a central strand – two sisters from the Trenchtown ghetto are hired by a sophisticated ex-Jamaican lady to do "mule" duty, but things go badly in an exemplary way – and a surrounding collage of sub-plot with floating vignettes. In all this, the three black actresses play 12 roles of varying sizes. It is fun to hear their artful mimicking of different black accents (London posh, London East End, Jamaican, Nigerian).

But the central strand, being exemplary, is as predictable as any TV docu-drama; and Miss Pinnock has sought to leaven it by foisting self-conscious, hyper-articulate dialogues and monologues upon her characters, along with some very woozy "feminist" morals.

In a novel, they might read well in third-person form (the novelist tells us what *she* thinks her characters must be thinking); as uttered on stage *in propria persona* they are hard to believe, despite the players' valiant, inexpert efforts to give them live conviction.

By the end, one feels slightly better informed about the sad, continuing situation that unreasoned western legislation has brought about (which a TV documentary could have achieved just as well), and tantalised by poetical flashes into the lives of the female third-world poor. Those distinct things do not coalesce here.

Instead, we seem to have two sub-plays of different kinds running in awkward alternation, to the theatrical detriment of both. All the cast – Abi Eniola, Sheila Whitfield and Clare Perkins – have strong, communicative virtues; I think their director Roxana Silbert might have done much more to lubricate their stiff interplay.

David Murray

At the Royal Court Theatre Upstairs, to May 18.

INTERNATIONAL ARTS GUIDE

■ ANTWERP

CONCERT
De Singel Tel: 32-3-2483800
● La Petite Bande: with conductor/violinist Sigiswald Kuijken and violinist Ryo Terakado perform works by Haydn and Mozart; 8pm; May 6

■ ATHENS

CONCERT
Athens Concert Hall
Tel: 30-1-7282333
● Athens State Orchestra: with conductor Dimitris Chorafas and pianist Aris Garoufalis perform works by Ravel, Rachmaninov and Mahler; 8.30pm; May 3

■ BARCELONA

EXHIBITION
Museu Picasso Tel: 34-3-3196310
● Futurism: exhibition featuring works by the leaders of this movement. These were the artists who signed the first Manifestos: Marinetti (Futurist Manifesto, 1909) and Boccioni, Carrà, Russolo, Balla and Severini (Manifesto of Futurist Painters, 1910). The exhibition is supplemented with works by Depero, Sironi and Soffici. The display includes some 60 paintings and 30 drawings, as well as letters, photographs and books; from May 8 to Jul 31

■ BERLIN

CONCERT
Konzerthaus Tel: 49-30-203090
● Vogler Quartet: perform works by Haydn, Ligeti and Smetana; 7.30pm; May 5
OPERA
Deutsche Oper Berlin
Tel: 49-30-3438401
● Lucia di Lammermoor: by Donizetti. Conducted by Marcello Viotti and performed by the Deutsche Oper Berlin. Soloists include Manuel Lanza, Lucia Aliberti, Alfredo Kraus and Volker Horn; 7.30pm; May 6
Komische Oper Tel: 49-30-202600
● La Traviata: by Verdi. Conducted by Shao-Chia Lü and performed by the Komische Oper. Soloists include Nadelmann, Fedin and Dobber; 6pm; May 5
Staatsoper unter den Linden
Tel: 49-30-2082861
● Der Rosenkavalier: by R. Strauss. Conducted by Donald Runnicles and performed by the Staatsoper unter den Linden. Soloists include Tina Kiberg, Günter von Kannen and Iris Vermillion; 6pm; May 4, 7 (6.30pm)

■ BRUSSELS

THEATRE
Rideau de Bruxelles
Tel: 32-2- 507 83 60
● Molly Sweeney: by Brian Friel (in French). Directed by Adrian Brine. The cast includes Cristian Crahay, Danièle Denie and Luc van Grunderbeeck; 8.15pm, Mon 6.30pm; from May 6 to May 11

■ CHICAGO

EXHIBITION
Art Institute of Chicago
Tel: 1-312-4433600
● Contemporary British Architects: Recent Projects from the Architecture Section of the Academy Summer Exhibition: this exhibition features 80 architectural drawings, models and photographs from leading British architects as well as up-and-coming practitioners; to May 5

■ COLOGNE

OPERA
Opernhaus Tel: 49-221-2218240
● Die Zauberflöte: by Mozart. Conducted by Georg Fischer and performed by the Oper Köln. Soloists include Dieter Schweikart, Rainer Trost, Martina Rüping and Iride Martinez; 7.30pm; May 4

■ LONDON

DANCE
Royal Opera House - Covent Garden Tel: 44-171-2129234
● Anastasia: a choreography by Kenneth MacMillan to music by Tchaikovsky and Martinu, performed by The Royal Ballet. Soloists include Leanne Benjamin, Stuart Cassidy and Jonathan Cope; 7.30pm; May 3, 9
OPERA
London Coliseum
Tel: 44-171-8360111
● Fidelio: by Beethoven. Conducted by Richard Hickox and performed by the English National Opera. Soloists include Anthony Rolfe Johnson, Kathryn Harries and Peter Sidhom; 7.30pm; May 3, 8
THEATRE
Lyttelton Theatre
Tel: 44-171-9210631
● Blue Remembered Hills: by Dennis Potter. Directed by Patrick Maber and performed by The Royal National Theatre. The cast includes Geraldine Sommerville; 8pm; May 3, 4 (also 3pm), 6

■ LOS ANGELES

EXHIBITION
Los Angeles County Museum of Art Tel: 1-213-857-6000
● Photography and Beyond in Japan: Space, Time and Memory: this exhibition of some 90 works by 12 artists surveys the diverse uses of photographic media that have evolved in Japan in the last 15 years and the interrelationships between western and Asian influences. The exhibits range from traditional prints to sculptural works, and from conventional formats to computer-synthesized pictures; to May 5

■ NEW YORK

CONCERT
Alice Tully Hall
Tel: 1-212-875-5050
● Emerson String Quartet: perform works by Dvorák, Rorem and Brahms; 2pm; May 5
Avery Fisher Hall
Tel: 1-212-875-5030
● The National Chorale: with conductor Martin Josman perform Brahms' Requiem and Bernstein's Chichester Psalms. Soloists include Rebecca Copely and Julien Robbins; 8pm; May 3
EXHIBITION
MOMA - Museum of Modern Art, New York Tel: 1-212-708-9400
● Lilly Reich - Designer and Architect: the first exhibition devoted to this modernist German designer of the 1920s and 1930s; to May 7

■ OXFORD

EXHIBITION
Museum of Modern Art
Tel: 44-1865-722733
● Carl Andre Sculptor 1996: the first large retrospective exhibition of Andre's sculpture to be seen in Britain for 20 years. Highlights of the exhibition include the reconstruction of the installation Equivalents I-VIII, created by Andre in 1966, and the 11 metre square piece called 6-Metal Fugue (for Mendeleev); from May 5 to Jun 30

■ PARIS

CONCERT
Salle Pleyel Tel: 33-1 45 61 53 00
● Orchestre Philharmonique de Radio France: with conductor Günther Herbig perform Mozart's Symphony No.36 in C, K425 and Mass in C minor, K427. Soloists include R. Fleming, I. Tamar, I. Beuzon and T. Fechner; 8pm; May 3

■ ROME

CONCERT
Accademia Nazionale di Santa Cecilia Tel: 39-6-3611064
● Orchestra dell'Accademia di Santa Cecilia: with conductor Myung-Whun Chung, soprano Nina Rautio, mezzo-soprano Cinzia De Mola, tenor Gary Lakes and bass Marek Gasztecki perform Debussy's La Mer and Janácek's Glagolitic Mass; 5.30pm; May 5, 6 (9pm), 7 (7.30pm)

■ SAN FRANCISCO

EXHIBITION
California Plaza of the Legion of Honor Tel: 1-415-863-3330
● Pergamon: The Telephos Frieze from the Great Altar: exhibition of rare and renowned works of Hellenistic sculpture from the second century BC. Twelve newly restored relief sculptures from the Telephos frieze that once decorated the interior court of the Great Altar of Pergamon are on display, along with some 30 other works that help explain the original purpose and placement of the Telephos frieze; from May 4 to Sep 8

■ ZURICH

OPERA
Opernhaus Zürich
Tel: 41-1-268 6666
● Ormindo: by Cavalli. Conducted by Veronica Scully and performed by the Oper Zürich; 8pm; May 3, 5 (5pm)

Listing compiled and supplied by ArtBase The International Arts Database, Amsterdam, The Netherlands. *Tel: 31 20 664 6441*

WORLD SERVICE
BBC for Europe can be received in western Europe on medium wave 648 kHZ (463m)

EUROPEAN CABLE AND SATELLITE BUSINESS TV
(Central European Time)

MONDAY TO FRIDAY

NBC/Super Channel:

07.00
FT Business Morning

10.00
European Money Wheel
Nonstop live coverage until 15.00 of European business and the financial markets

17.30
Financial Times Business Tonight

CNBC:

09.00
Squawk Box

10.00
European Money Wheel

18.00
Financial Times Business Tonight

Peter Martin

Polishing up Rover's act

Patience will be needed if BMW is to overcome the inherent difficulties of transferring its premium-pricing strategy to its UK subsidiary

It seems so tempting. In industry after industry, troubled companies plan to escape from their problems by following a BMW strategy: premium pricing for a premium product: technical excellence combined with glamour; limited volume but high returns.

Apple is just the latest company to try to adopt this approach. But following in BMW's footsteps isn't easy. In fact – as this week's news suggests – even BMW finds it difficult at times.

BMW is trying to apply the recipe it used to escape from *near-bankruptcy* in 1959 to Rover Group, its recent British acquisition. On Monday, however, it announced that Mr John Towers, who had *transformed Rover's manufacturing processes* before the BMW deal, was leaving as Rover's chief executive.

Mr Towers may indeed have had long-laid plans to leave; he may well be in line for one of the slew of top UK engineering jobs now available. But his departure does nothing to dispel the general impression that BMW is unhappy with the short-term performance of its British acquisition.

Of course, ostensibly friendly cross-border takeovers often follow such a trajectory, particularly when the product is enveloped in *national sentiment*. First, all is sweetness and light: the acquirer goes out of its way to praise the quality of its new workforce, the depth of managerial talent, the strength of the brand. The subsidiary's long-cherished investment plans are given the parent's blessing. Long-term strategic sourcing plans are agreed.

Then things start to go a bit sour. National characteristics grate a little. Differences over accounting standards, transfer prices or engineering philosophy leave one side or the other feeling disgruntled. Before long, all the original directors have moved on, leaving the parent to choose more sympathetic managers.

Over time, the characteristics of the parent win out. The result may be a long-term improvement in the subsidiary's performance, but there is usually little sign of the "best of both cultures" promised at the time of the acquisition.

BMW's experience with Rover may be no more than a playing-out of that familiar pattern. But it may also reflect the inherent difficulties of the strategy it is applying. The essential ingredients are demanding ones.

The most expensive of these – sustained high levels of investment to achieve the performance edge that the product positioning requires – is also the simplest. This merely requires deep pockets, which BMW certainly possesses: it has already doubled Rover's investment rate.

More complex are the other requirements. Obtaining superb and ever-improving quality requires the collaboration of the entire company, from managers to cleaners. Rover had made great strides in this area before the BMW takeover, and was certainly at the top of mass-market quality standards. But there has been a suggestion that it is making heavier weather of the higher standards and continuous improvement that a BMW strategy requires.

Achieving markedly superior product design and engineering is equally demanding. In Rover's case, this means restoring design and engineering resources squeezed to vanishing point in the crises of the 1970s and 1980s. But in the car industry generally, it means coping with ever-tougher competition.

Each year, a greater leap in design and engineering is needed if you hope to persuade the public that the difference is great enough to warrant a premium price. And any British-based car manufacturer faces a special task.

The car-buying – or, in the case of company fleets, car-choosing – public has no preference for its own indigenous brands. Indeed, at the upper end of the price range, there is a marked bias in favour of imports. Once such an attitude takes hold, as General Motors is finding in its attempts to resuscitate Cadillac, years of image-enhancement are required to overcome it.

Time is, indeed, the fourth demanding aspect of the strategy. A genuinely innovative product – the first working ball-point pen, the first truly portable computer, a better-tasting artificial sweetener – can obtain a price premium from the outset. Such a premium is essentially temporary, quickly competed away by imitators. Long-term premium pricing, however, requires long-term achievements in design, image and quality.

In mature industries such as cars, where breakthrough innovations are rare, this long-term premium pricing is the Holy Grail. It is exactly what BMW has achieved.

Time and consistency are very powerful weapons. A company can offset any temporary weakness in product range, for example, by allowing an unexciting model to draw on the lineage of past outstanding designs. As long as the next model is a return to form, no lasting damage has been done, and margins have been kept up in the meantime. BMW's strategy, forged in the aftermath of the 1959 crisis, took two decades to come to its full flowering. Time is probably the greatest gift that BMW can give to Rover. Patience is a virtue it is easier to exercise close to home, however.

***

The replacement for Mr Towers, it is said, will be a British executive from outside both Rover and its parent. The news comes in the same week as the departure of career gasman Cedric Brown from British Gas and reports that ICI may replace nearly a quarter of its top managers with outsiders over the next 18 months.

Meanwhile, GEC has just chosen a new boss from Lucas; GKN has filled its top job with an executive from BOC. Several other engineering companies are looking for bosses, and the assumption is that they will come from outside. It sometimes seems that no-one in British industry rises to the top from inside the company any more.

If the habit of recruiting chief executives from outside has become more prevalent, why has it happened? One possible explanation is the shift of power within the boardroom over the past decade. Once, executives dominated the board both numerically and in practical terms. Now, thanks in part to the Cadbury committee on corporate governance, there are more non-executives with an increasingly important role.

On routine decisions, of course, they usually end up deferring to operating expertise. But on big, one-off choices, such as a new chief executive, they come into their own. When such issues arise, the grass on the other side of the fence always looks greener; someone else's well-publicised chief executive seems a bit more glamorous than the inside candidate.

A second reason, often cited by outgoing chief executives with a sigh, is that de-layering has removed the senior co-ordinating jobs in which putative successors obtained wide-ranging responsibilities.

These demand-side forces meet a supply side of head-hunters aching to deliver the new chief executives their clients want. But is the resulting musical chairs at the top of British industry desirable? Let's end this article where it began, with a lesson drawn from BMW, undoubtedly one of Europe's best-managed companies.

How has it selected its chief executives? The 1959 rescuer, Herbert Quandt, came from outside; but he immediately appointed an insider, Paul Hahnemann, to run the company. It was Hahnemann who devised the successful BMW strategy. Score one for the insiders.

Hahnemann's successor, however, was Eberhard von Kuenheim, who had joined the company only five years before from Robert Bosch. It was under him that BMW pushed into export markets, with great success. One-all.

Since 1993, the management board chairman has been Bernd Pischetsrieder, a career BMW man. Two-one to the insiders. Is there a lesson there for British industry?

BOOK REVIEW · Peter Montagnon

ASIA RISING: By Jim Rohwer
Simon and Schuster, $25, 382pp

A miracle mixture in the growth hot-house

If Jim Rohwer is lucky, he will make enough out of *Asia Rising* to buy the house he covets in the old French concession of Shanghai. If he is right, that house will be worth a fortune by the time he retires.

It is difficult for anybody with more than fleeting contact with Asia not to come under the spell of its phenomenal growth. Rohwer, who spent several years as Asia editor of The Economist before joining CS First Boston, is no exception.

In 1960, he notes, South Korea was no richer than Sudan; Taiwan was as poor as Zaire. Even in Japan incomes were only an eighth as high as those of the US. Around that time Gunnar Myrdal, a Nobel Prize-winning economist, wrote a 2,200-page book bemoaning Asia's lack of export prospects.

Now the conventional wisdom has changed. Between 1965 and 1990, the leading economies of east and south-east Asia grew three times as fast as those of the industrialised world. Like most Asia hands, Mr Rohwer assumes *that growth will continue.*

This book is an attempt to explain the Asian miracle. But it also raises some important questions. Is the miracle really sustainable? And what are the implications for the west?

Though circumstances differ from country to country – Taiwan's approach was radically different from the industrial championing favoured by Korea – Mr Rohwer finds several common factors behind the region's success.

Asia may have an authoritarian tradition but its governments are less interventionist than those of western democracies. "*In human life, economics* precedes politics and culture," said Mr Park Chung Hee, who seized power in Korea in 1961. Asian governments have not been big spenders on welfare, and thus do not generally run large fiscal deficits.

That in turn makes people more self-reliant and adaptable, more inclined to save, and more appreciative of the *social cohesion inherent in* family life. Since governments distribute less largesse than in the west – even South Korea has been ruthless in cutting off industries that failed to perform – there is less wasteful spending on vested interests.

Another important difference between Asia and other developing regions was its openness to new technology and new ideas. Brazil tried in vain to develop a protected indigenous *computer industry* in the 1980s with disastrous consequences for other sectors which depend on electronics such as aerospace. Asia by contrast has been *willing to import technology* and has not imposed on itself the handicap of an inflexible industrial policy.

Somewhere in this mix lies the secret of Asia's success. Mr Rohwer attaches great importance to the close-knit networks of the overseas Chinese, but, like the rest of us in the western media, he has difficulty breaking in.

Legend has it that in 1987 Mr Li Ka-shing, the billionaire *Hong Kong Chinese* businessman, assembled the finance needed for his unsuccessful bid for Hongkong Land in a single all-night session with his mah-jong playing chums. That is an awesome sign of financial muscle. It would be intriguing to know more, but the chapter on the overseas Chinese is a mere 14 pages. The Chinese entrepreneurs who play such an important role are conspicuous by their silence.

The region has its frailties, too. Rohwer says its institutions may be too weak to regulate the complex economies that are now emerging. Its *infrastructure is creaking and* its financial system primitive.

There is a security risk in China's growing power and in North Korea. There is also the risk that Asian society will become flabby as its newly affluent middle classes demand more democracy and *welfare.*

Mr Lee Kuan Yew, Singapore's senior minister, cautions that "we can't have single mothers. It's totally unacceptable, and we keep it unacceptable." But divorce rates have risen, and government spending has grown sharply in the new democracies like Taiwan.

Rohwer's guess is that Asia will steer its way through these minefields. Growth will continue, though it might slow down for a while around the turn of the century as the infrastructure problems are finally dealt with.

The west, he argues, should see in this an opportunity rather than a threat. The new Asian middle class will create a massive consumer market. *McKinsey, the consultancy* group, reckons that ownership of colour televisions shoots up from under 40 per cent to about 75 per cent when average annual incomes reach $1,000. China already had 60m consumers in this pool in 1992. The number will be 270m by the turn of the century.

The other side of the coin, which Rohwer downplays, is the impact on commodity prices. Grain prices are creeping up as Asians demand more food. Oil demand will grow as they drive more cars.

Western societies will have to pay higher prices for these commodities too. *Asia with its* canny ways may learn to compensate with higher productivity. The west, which is less adaptable, may simply grow relatively poorer.

That is a real concern for the rest of the world, particularly now that China with its 1.2bn people has joined the fast-growth league. Robwer makes little of it. But with his house in Shanghai, he will at least have hedged his bets.

Asia Rising *is available from FT Bookshop by ringing +44 181 964 1251 or fax credit card details to +44 181 964 1254 (post and packing £1.50 in Europe)*

·LETTERS TO THE EDITOR·

Number One Southwark Bridge, London SE1 9HL

We are keen to encourage letters from readers around the world. Letters may be faxed to +44 171-873 5938 (please set fax to 'fine'). e.mail: letters.editor@ft.com Translation may be available for letters written in the main international languages.

Cost of ethically unacceptable behaviour

From Prof Michael Singer.

Sir, Your leader "Sexual harassment" (April 29) appeared on the same day as detailed press reports here of the allegations against Mitsubishi. The Equal Employment Opportunities Commission alleges in its lawsuit that supervisors at Mitsubishi routinely addressed women employees as "slut", "whore" or "bitch" rather than by name, that men grabbed women's breasts, buttocks and genitals, that a male employee put an air gun between a female co-worker's legs and pulled the trigger, that some women had their work sabotaged, resulting in injuries, and more. If these allegations are true, the EEOC is protecting fundamental rights and not, as you put it, trying "to codify such complexities as relationships between the sexes".

Grotesque behaviour of the kind alleged is not only ethically unacceptable, it imposes an economic cost on society. Gross discrimination makes the job market less attractive to women, and thus distorts the free market just as surely as a combination among traders to crowd out a competitor.

Michael Singer,
executive director,
International Rule of Law Institute,
The George Washington University Law School,
Washington DC 20052, US

From Prof Helen Wallace.

Sir, The tone and content of your editorial "Sexual harassment" suggests that you have forgotten that you have at least some women readers. There is no difficulty with the law in any country as long as in the workplace men (and, of course, women) keep their hands and their innuendoes to themselves. This is not an issue of "political correctness", but of decent and respectful behaviour towards colleagues.

Helen Wallace,
49 St James's Drive,
Wandsworth Common,
London SW17 7RN, UK

Support for Nigeria is needed

From Mr P. Parker.

Sir, We are saddened to read the on-going criticism of Nigeria in the media. Nothing is achieved in this complex world by boxing your friends into a corner.

Nigeria is the most populous black country in Africa, having great importance to the world's oil-based economy and to us in the UK, a significant trading partner.

The British have a well-earned reputation of being *excellent diplomats and we ask* on behalf of all those who trade with Nigeria for a better understanding of today's Nigeria.

Yes, there are tensions, and, let it be said, Nigeria has a legacy of problems whether ethnic or of a political nature. But we must not fall into the easy, and maybe comfortable, position of political correctness with simple dictation to Nigeria of our western terms of acceptability.

To achieve stability and prosperity in the country, Nigeria must be able to look to its friends for respect and support.

P. Parmer,
"Understanding Nigeria" Group,
AEC (Afrab European Company),
35-37 Brompton Road,
Knightsbridge,
London SW3 1DE,
UK

Greater transparency before forgiving debt

From Mr Karl A. Ziegler.

Sir, Your leading article ("Relieving debt", April 24) could have been written by the well-meaning folk at Oxfam and Christian Aid. The piece argues that the eight to 20 heavily indebted poor countries named in last week's proposals for relief of World Bank/IMF debt, are crippled in their efforts at self-improvement without such relief.

It ends by saying that it would be "inexcusable" if the "relatively trivial obstacles" presented by the dissenting votes on the boards of these *two august institutions* were not overcome by their September annual meetings.

What nonsense! Many of the named counties became over-borrowed due to corrupt leadership. If they are an embarrassment to the Bank or Fund through non-payment of obligations, perhaps greater discipline needs to be demanded of them, before any thought of debt-forgiveness is entertained.

The qualifying macroeconomic demands traditionally made by two institutions are often waived, for political reasons, when countries fail to realise them completely: witness Russia, Ukraine, Poland, Mexico and, *most recently*, Kenya.

It would be most useful if the organisations' managements were to demand far greater micro-transparency and accountability on the part of these heavily indebted nations, before thinking of selling off their reserves in funding unmerited debt-forgiveness programmes. Of the listed nations, far greater favour should certainly be shown to Uganda rather than to Zaire and the Sudan.

Uganda's President Museveni has invited greater long-term micro-auditing of all his government's public sector institutions in exchange for greater debt forgiveness. His worthy initiative should be emulated by others on the Bank/Fund list.

Otherwise, throwing further resources at unaccountable governments would aid neither those countries' poor citizens, nor the moral concerns or financial responsibility of the donor community.

Karl A. Ziegler,
The Centre for Accountability and Debt Relief,
6 Bradbrook House,
Studio Place,
Kinnerton Street,
London SW1X 8EL, UK

Hardly a global perspective

From Mr Grant Kennedy.

Sir, The advent of globalisation has allowed weak businesses to continue to run where the government would otherwise have had to provide a rescue package. It increases the pool of potential buyers for a given company, thereby improving its liquidity. Clearly there are issues of security that must be addressed when allowing foreign investment to be introduced. Whether the outside interest is Texan or otherwise has no bearing, however.

Your article ("Industrialist deplores 'overseas masters'", April 29) states that Sir William Barlow, former chairman of the Post Office and of BICC, the cables and construction company, has had long experience of business operating globally. His summary dismissal of Texans reveals a myopia that falls short of global perspective.

Grant Kennedy,
1701 *Millenia Tower*,
1 Temasek Avenue,
Singapore 039192

Appropriate

From Mr Richard Bittiner.

Sir, Given the circumstances surrounding Chancellor Helmut Kohl's UK visit, your photograph of him reviewing members of the Scots Guards *outside 10 Downing Street* (April 30) caused me to reflect that it may have been more appropriate for the chancellor to have reviewed a contingent of Beefeaters instead.

Richard Bittiner,
Bittiner Whitehouse & Cie,
9 rue Charles-Humbert,
PO Box 5132, Geneva,
Switzerland

COMMENT & ANALYSIS

FINANCIAL TIMES
Number One Southwark Bridge, London SE1 9HL
Tel: +44 171-873 3000 Telex: 922186 Fax: +44 171-407 5700
Thursday May 2 1996

Expanding Nato eastwards

Javier Solana, secretary-general of Nato, has been getting a muted reception on his tour of would-be members in central Europe. That is not surprising, since he has little to offer. "At this moment, no country has been ruled out, and no country has been ruled in", he repeats at each stop.

As President Vaclav Havel pointed out after welcoming Mr Solana in Prague, "it has been six years since the fall of the Iron Curtain". It is also two years since the alliance's leaders declared that they "expect and would welcome Nato expansion that would reach to democratic states to our east as part of an evolutionary process". Last autumn Nato completed its study of "how and why" this process should proceed. But the more invidious decisions on "who and when" will not be taken until this December's summit, at earliest.

One reason for this leisurely timetable is that 1996 is an election year both in Russia and the US. No one in Nato likes the idea of giving Russia, a non-member, a veto on the alliance's decisions. But no one wants, either, to help Gennady Zyuganov, the Russian communist leader, achieve victory in June. In reality there is no reason to suppose that many Russian voters will be influenced by Nato's attitude. But repeated warnings from the Yeltsin camp that Nato enlargement would strengthen hardline tendencies in Russia have clearly had some effect.

Electoral suspicions

Many Europeans believe that US enthusiasm for enlargement is fuelled by electoral considerations (the "Polish vote"). US policymakers strenuously deny this, but say they hope to delay any move on enlargement until after the US election in November, if only in order to refute such suspicions. It may not be easy for them to do so, however, if Senator Dole takes up the theme during the campaign.

Even when both sets of elections are out of the way, the decision may not look any easier. A victorious Mr Zyuganov may well adopt a conciliatory line towards the west, in which case there will be no lack of western voices urging that this line should be encouraged and rewarded, and that hasty Nato enlargement would have the opposite effect. Equally a re-elected Boris Yeltsin can be expected to continue urging his western friends not to isolate Russia by expanding Nato up to its borders.

In addition, and more persuasively, countries such as Ukraine and the Baltic states will continue to plead that their security is more directly threatened than that of any central European country, and that any enlargement leaving them out in the cold might actually make things worse rather than better. Yet no known scenario provides for their inclusion in the first wave of new members.

Slow processes

Ideally, EU expansion should precede or at least accompany Nato expansion. Once central European countries are within the EU their security will be indissolubly connected with that of western Europe, and their inclusion in Nato should seem more natural both to Russians and to Nato's existing members. But advocates of Nato enlargement, especially in the US, are understandably reluctant to make it wait on the slow and tortuous EU processes of intergovernmental conference, reform of the structural funds and common agricultural policy, and separate clause-by-clause entry negotiations with each new candidate for membership.

If the EU were capable of seizing the strategic initiative it would cut this Gordian knot by immediately identifying the first batch of new members and embarking on a broad-brush negotiation with them, aimed at giving them full political membership within two years and leaving the economic detail to be worked out over a long transition period. Nato could meanwhile be working out, with Russia, a new system of collective security based on the Organisation for Security and Co-operation in Europe.

What is unacceptable is for central Europe to be kept waiting indefinitely while Nato and the EU play "Gaston and Alphonse". That would dangerously demoralise central Europeans, while encouraging Russians to think they can always intimidate the west if they try hard enough.

From disunity to defeat

Another round of local elections. Another rout. And another bout of speculation about Mr John Major's leadership. For the government, humiliation in the annual council elections has become a depressing ritual. So too has the fevered gossip at Westminster about the prime minister's future.

There is little doubt that the Conservatives will do badly in today's contests. When the same council seats were last fought in 1992, the government was riding high in the aftermath of its general election victory. Now it trails Mr Tony Blair's Labour party by between 20 and 30 points.

The progressive weakening of the independence of local government has also taken its toll. Most important decisions over spending, services and amenities are taken in Whitehall rather in the town halls. The incentive for voters to treat the elections as little more than a national opinion poll has never been greater.

Optimists in Conservative Central Office believe the party might lose about 500 of the 1,100 council seats it is contesting this time. Many Tory MPs expect worse. The pessimistic forecasts are of losses of 900 or more seats. Such an outcome would all but eliminate the Conservatives as a serious force in local government. It would also stoke the fires of speculation as to whether Mr Major should remain.

The answer that Tory MPs should give to that question is an unequivocal yes. Mr Major offered his party the opportunity to choose a new leader last year. It decided against change. Nothing since suggests that the government can climb from the mire by ditching the prime minister.

Bloody contest

Those who assume that Mr Major could be replaced by Mr Michael Heseltine, his deputy, in a bloodless Downing Street coup are trading in fantasies. In a speech yesterday to the Newspaper Society, the prime minister gave no inkling that he might stand aside. If he were to be forced out, the deep Tory divisions between left and right, between Eurosceptics and pro-Europeans, would be torn open in a bloody contest. The eventual victor would probably inherit a party which was ungovernable. The electorate, rightly, would conclude that the Conservatives had given up any claim to remain in office.

To focus on Mr Major is also to ignore the more fundamental problems facing the government and the Conservative party. Certainly there is much that can be criticised in his style of leadership. The prime minister is a tactician rather than a strategist. His anxiety to appease his critics has often been at the expense of a clear sense of purpose. But Mr Major is more a symptom than a cause of the disunity and divisions which so damage the government.

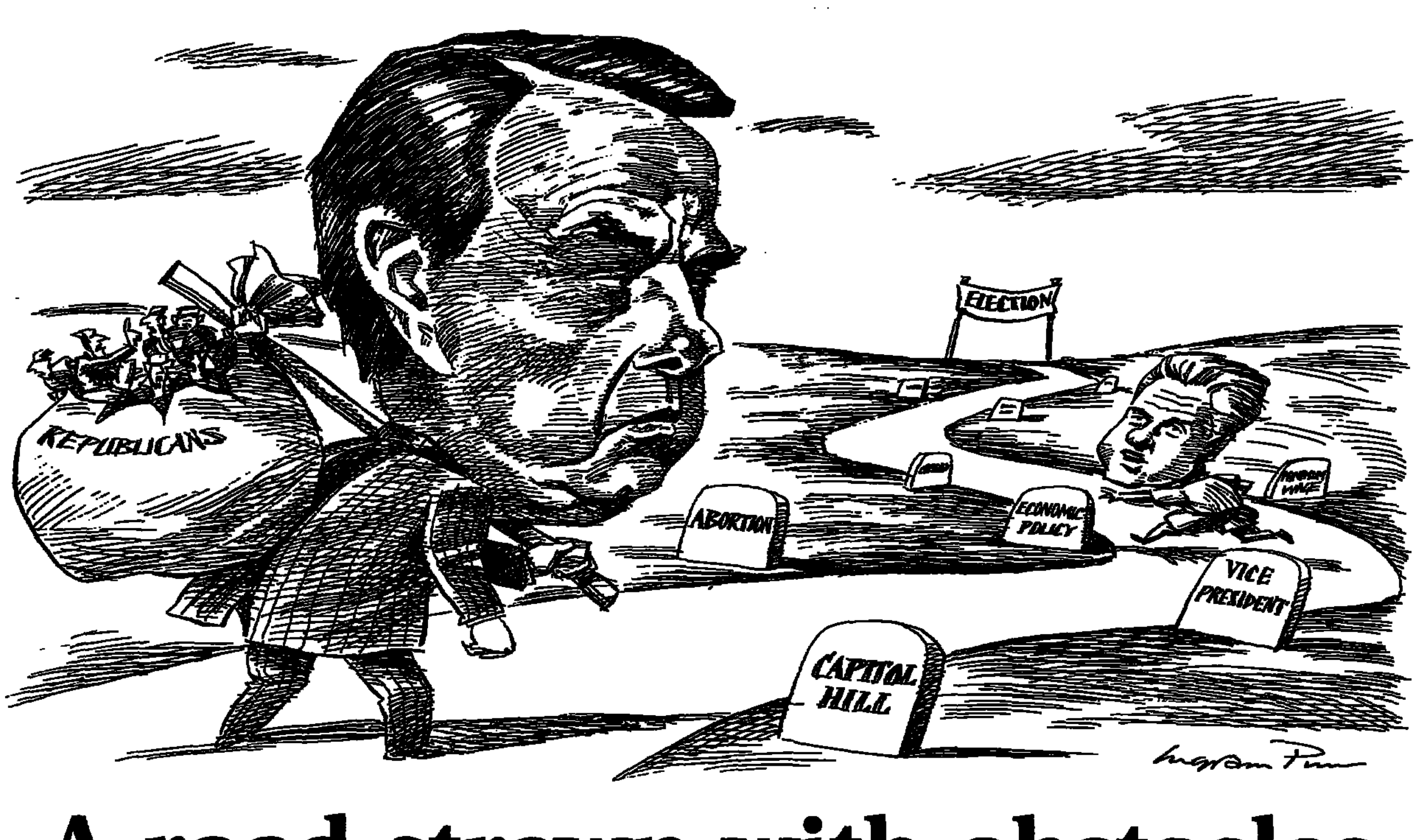
Economic realities

His fiercest critics are demanding an ideological lurch to the Eurosceptic right. They want to fight the general election on a platform of much lower spending and taxation and of an aggressive assault on the authority of the European Union. But this is a prospectus which matches neither political nor economic realities.

As Mr Malcolm Rifkind, the foreign secretary, commented yesterday, the UK's national interest lies firmly in remaining an active member of the Union. The government cannot renege on past treaties. And, for all the wishful thinking among some Eurosceptics, the trade and economic advantages of the single market would not be available outside the EU.

Nor can the government secure easy votes by slashing spending on the welfare state to pay for pre-election tax cuts. In a powerful speech this week, Mr Heseltine offered a timely reminder that general elections in the UK are won not from the left or the right but from the centre. It is always tempting for parties to pander to the prejudices and instincts of their core supporters. But, as Labour discovered during the 1970s and 1980s, to do so is to sacrifice the support of the uncommitted centre whose votes are essential to win elections.

If the Conservatives are to retain any chance of political recovery before the general election they must face such realities. If nothing else, there will be one clear message from the outcome of today's elections. The road of disunity invariably leads to defeat.



A road strewn with obstacles

Bob Dole's chances of defeating Bill Clinton in November's presidential election look increasingly remote, says **Jurek Martin**

The only poll that matters is the one on the first Tuesday in November when America elects its next president. But a survey of public opinion by Mr Gallup this week should have served as a wake-up call to Senator Bob Dole, now seriously adrift on the road to the White House.

It was not so much the numbers that were chilling for the Senate majority leader and presumptive Republican presidential candidate. A 21-point deficit behind President Bill Clinton may be bad, but previous candidates, including Mr Clinton in 1992 and vice-president Mr George Bush four years earlier, have recovered from double-digit shortfalls.

But it was the invocation of history that showed how steep a hill Mr Dole has to climb. Never in its 60-year record of polling, Gallup said, had any candidate been as far ahead as Mr Clinton six months before election day and gone on to lose. Worse, and unlike 1992, all the movement in public opinion now seems to be in the direction of the incumbent. His Democratic party is also reaping the benefit, to the point that the Republicans might also end up losing the control of Congress they won so dramatically in 1994.

Republicans have been sounding alarm bells for some time, none more loudly than Mr William Kristol, former aide to vice-president Mr Dan Quayle and now editor of the Weekly Standard, a new conservative magazine. "Bob Dole is likely to lose the presidential race to Bill Clinton. He may lose badly," he wrote earlier this week. "The current conventional wisdom in Washington notwithstanding, it is not inevitable that the race will tighten up. Some races simply settle in."

Mr Bill Bennett, education secretary in the Bush cabinet, was among the first to suggest that Mr Dole stand down as majority leader and get on with the business of waging ideological war against Mr Clinton. But Mr John Kasich, chairman of the House budget committee, wondered if he could, given his apparent inability to "articulate the message".

All three, leading proponents of the conservative revolution that was supposed to have dawned in 1994, have never been particular fans of Mr Dole, to whom new-fangled ideology and ideas have always appeared alien. But the Republican governors of California, New York and New Jersey are cut from his pragmatic cloth and they, too, are now warning of impending disaster.

Mr Pete Wilson this week joined George Pataki and Mrs Christie Whitman in stating that if the Republican party platform continues to demand that abortion be banned, moderate and independent votes will disappear. The governor of California said this, at a press conference, just before a campaign strategy session with Mr Dole.

His intervention brought howls of protest from the Christian Coalition and other social conservatives, and from the rump of Mr Pat Buchanan's campaign. All threatened defections and, in the case of Mr Buchanan, a third-party movement should the pro-life plank be ditched. Mr Dole, never comfortable in talking about abortion in public, sought to placate both sides – thus satisfying neither. He agreed to Mrs Whitman's appointment as a convention co-chair but placed two strong anti-abortionists in charge of the platform committee.

A convention split over the issue, echoing the Houston battle four years ago, bodes ill for Mr Dole's appeal to women voters, among whom he must do better to stand a chance in November. If the 1994 Republican congressional landslide reflected the temporary ascendancy of the "angry white male", the gender gap is now working in the opposite direction, with poll after poll giving Mr Clinton a 20-point lead among women. This is partly because of abortion and partly women's fears about the radical changes to the healthcare and welfare system proposed by Republicans.

But whenever Mr Dole bends in a clearly popular direction, conservatives hold his feet to the fire. Increasing the federal minimum wage, last raised to its present $4.25 an hour in 1989, is a case in point. Whatever the arguments of economists and the business lobby, it commands broad support, including among moderate Republicans.

Mr Dole conceded recently that an increase was probably "inevitable", an admission that induced a volcanic eruption from Rush Limbaugh, still influential from his rightwing radio talk booth.

The minimum wage issue is but one example of how the Democrats in Congress, more united than at any time since the 1960s, are making it hard for Mr Dole to run for president from Capitol Hill. They are doing to him what the Republicans did to the Clinton agenda in 1994 when comprehensive healthcare reform and a fistful of other proposals were defeated, blocked and eviscerated. The clear purpose is to deny the Republicans any record of legislative achievement on which to run in November.

This fiscal year's budget has finally been agreed, but only after Republican concessions on the environment and education. On immigration reform, this week's priority, he has to persuade a fellow Republican, Senator Alan Simpson from Wyoming, not to support the sort of reductions in the influx of skilled foreign workers that the Republican business lobby is set against.

The recent surge in petrol pump prices, Mr Dole is discovering, does not respond to a quick-fix solution. Repealing the 4.3 cents-a-gallon tax surcharge of 1993 has obvious political appeal but the budgetary consequence – the loss of $30bn in revenues over six years – has forced him to settle for a modest one-year suspension. Even this left him open to a fast White House counter-attack pointing out how often he has supported higher petrol levies.

Health insurance reform, another cause popular in both parties, is proving a minefield. There are few disagreements with this modest measure making coverage portable from job to job. But if Mr Dole insists on including tax-free medical savings accounts, a conservative priority, the whole bill may be lost – either in Congress or to a presidential veto.

But Congress is Mr Dole's milieu and he is unlikely to improve his ratings should he leave it for the campaign trail. The latest set speeches – on the "liberal" Clinton judiciary and the evils of "socialist" public housing – have been wooden. One, in Indianapolis last Saturday, was delivered so late it went largely unreported, a problem that his less-than-press-friendly campaign encountered in earlier primaries. If there is a "vision", it remains obscured.

Nor is there much encouragement in the "veepstakes", slang for his choice of a running mate. A lethal insider's article by Fred Barnes in the Weekly Standard describes a "dirty bloody battle" between leading aspirants, among them four midwestern governors, former governor Carroll Campbell of South Carolina and Senator John McCain of Arizona. Much of the mud is being thrown at one of them, Mr John Engler of Michigan, variously portrayed as looking like a "thug", a womaniser and a draft-dodger.

Mr Colin Powell, the former chairman of the joint chiefs of staff, is seen by many as the only person who can put a Republican in the White House. But there is no evidence that he is interested – and if he were, it may be wondered why he would be interested in second place on the party ticket.

There may be less to fear for Mr Dole from a Ross Perot candidacy, should one emerge. Some polls suggest the electronics billionaire now draws as much support away from Mr Clinton as Mr Dole. But in important states, especially in the south, he could have the opposite effect. In his native Texas, for example, a Perot presence, together with mobilisation of the Hispanic vote by Mr Victor Morales, the Democrat running against Senator Phil Gramm, could greatly improve the president's chances on what is now unfriendly ground. Second-guessing Mr Perot's intentions is notoriously difficult, but the man's ego is vast and, as Cragg Hines of the Houston Chronicle wickedly points out, the law prevents Mr Perot spending more than $1,000 "on any candidate other than himself".

Mr Dole, his primary funds, unlike Mr Clinton's, almost exhausted, cannot spend much to promote himself outside Washington over the summer. So he presumably must stay and slug it out in the congressional trenches.

And he must repeat to himself that a decent, moderate conservative ought to have a fighting chance against an incumbent whose popularity is not in the stratosphere and who could be undone by anything from Whitewater to Russia or Bosnia. But sadly for Mr Dole, that is not what the pollsters are finding with six months to go.

· OBSERVER ·

Zen and the art of voting

■ Referendums have a way of unleashing emotions. Take next Sunday's poll in Berlin and the surrounding state of Brandenburg, where voters are being asked to decide whether the two should merge into one single *Land*.

In an attempt to mobilise the conservative, historically aware vote, the Christian Democratic party in the posh west Berlin suburb of Zehlendorf has put out posters stating that a merger would bring a return to a "Christian Prussia".

This is a bit naughty as Prussia – at whose heart sat the present-day region of Brandenburg – was abolished by the Allied Powers after the second world war, on the (perhaps unfair) ground that it was the root of all German militarism. And while most of its citizens were certainly nominally Christian, Prussia always prided itself on religious freedom, as far back as Frederick the Great.

Such inaccuracies have not been lost on the youth wing of the Social Democratic party, which has responded with posters calling for a "Buddhist Saxony", Prussia's long-time neighbour and rival.

Such humour is unusual for a political campaign in Germany. But then the referendum seems to have acquired its own taste for comedy. Brandenburg's minister-president – Manfred Stolpe – and his Berlin counterpart – Eberhard Diepgen – recently mounted a motor-bike and a tractor, to show just how easy it is for city and country to come together. Great photo-call – but hardly very Prussian.

Italian dribbling

■ Franco Bernabè is one man who has breathed a big sigh of relief at the centre-left victory in the Italian general elections. As chief executive of ENI, the partially privatised and highly profitable state oil company, his job was in the firing line from an incoming rightwing Berlusconi government.

Technically he should have been confirmed or replaced a month ago; but the Dini government shied away from moving on such a sensitive appointment in the election run-up. Now word has gone out that Bernabè will on May 14 be confirmed as chief executive for another five years.

The Italian public at large is far more concerned by the fate of another manager, affected by politics of a different kind. At stake is the future of Fabio Capello, indefatigable manager of AC Milan, the cup-winning football team owned by Silvio Berlusconi. Capello last weekend saw Milan win its fourth league title in his five years' management. His contract is up and he wants to join Real Madrid. But Berlusconi is reluctant to let him go; so are the fans.

My dear, it's divine

■ Late last night, Lama Yeshe, the abbot of the Samye-Ling Tibetan Centre near Eskdalemuir in Scotland, arrived in Moscow. His mission – to help set up the city's first Buddhist temple. He is there at the invitation of the city's budding Buddhist community. Buddhism has been attracting thousands of new adherents, particularly among the young. Testifying to the religion's new popularity, the Dalai Lama himself is planning a visit.

Observer spots an opening here for Boris Yeltsin, now facing a tough prospect in the forthcoming presidential elections. While his communist rival Gennady Zyuganov is embracing old workerist symbols, Yeltsin could drop by the new temple and ingratiate himself with the disaffected youngsters. Mind you, he'd probably only be greeted by the sound of one hand clapping.

Brother love

■ How incestuous is the world of French investment banking. There was a time when Lazard Frères advised on every deal, sometimes on both sides. Now the Americans have broken in on a transaction at the heart of the French financial establishment. Goldman Sachs is advising Crédit Agricole on its acquisition of Banque Indosuez. Compagnie de Suez has retained Morgan Stanley.

But the community of French investment bankers remains small. Family-sized, in fact. Goldman Sachs's team is led by Yoel Zaoui, Morgan Stanley's by his brother Michael. Other investment banks waiting to get into the Parisian scene can always call the middle brother, currently an optician.

Cook heats the pot

■ Robin Cook, Britain's shadow foreign secretary, has been taking the temperature in Hong Kong, including a walkabout with Governor Chris Patten in Wanchai, the girlie bar district. Cook was extremely impressed by the warm reception Patten received. So does he see Patten as potential leader of the Tories? Ever nimble-footed, Cook merely said that Patten "has achieved much more popularity in Hong Kong than he could ever possibly achieve with the Conservative party in Britain".

The normally icy Cook continued. He would require an awful lot of persuading, he said, of the need to replace Patten, should Labour take office after the next general election. Maybe not such a ringing endorsement – the poll is up to a year away, and Patten has to give Hong Kong back to the Chinese in July 1997.

Financial Times

100 years ago

Assassination of the Shah

A despatch from Teheran announces that the Shah of Persia has been shot. The doctor of the German Legation who attended his Majesty only arrived in time to certify that life was extinct. (Reuter).

The news that the Shah has been assassinated will cause a shock of surprise and indignation throughout Europe, where the unfortunate potentate was well known owing to his not infrequent visits. The motive of the crime is not yet known; possibly it never will be. The political consequences of the event may be far-reaching.

[The Shah assassinated at a time of increasing exposure by his country to western trade and ideas was Nasir ud-Din.]

50 years ago

Canadian Pacific Railway

Despite a falling off in traffic volume in 1946 – a trend which is expected to continue – Mr. D.C. Coleman, chairman and president of the Canadian Pacific Railway Company, does not anticipate that calls upon railway services will be drastically reduced in the immediate future. But he warned shareholders at the annual meeting in Montreal yesterday that the existing narrow margin between earnings and expenses left the company extremely vulnerable.

FINANCIAL TIMES
Thursday May 2 1996

Italian poll winner offers key posts to Berlusconi

By Robert Graham in Rome

The rightwing alliance headed by Mr Silvio Berlusconi, the former Italian prime minister, has agreed to discuss an offer from the Olive Tree coalition, which won last month's general election, to take important posts in the new Italian parliament.

The decision comes as the rightwing parties are debating whether to act as a united opposition such as the Italian parliament has never seen before.

Immediately after the rightwing parties' election defeat, Mr Giuliano Ferrara, editor of the pro-alliance daily Il Foglio, argued strongly for the creation of a British-style opposition.

He said the alliance parties should combine to form a coherent opposition block, form a shadow cabinet and reject any deals with the government. In this way the opposition could prepare for the next elections to offer a genuine alternative.

But the defeated rightwing alliance has yet to reconcile widely differing positions. Mr Berlusconi entered politics two years ago purely to become prime minister, and his Forza Italia movement is still wholly unaccustomed to the idea of opposition.

The former Christian Democrats who agreed to ally with Mr Berlusconi are equally unused to opposition, while the National Alliance of Mr Gianfranco Fini is handicapped by the need to prove it has dissociated itself from its fascist heritage.

The leading figures in the rightwing alliance met on Tuesday to discuss the future of the opposition, and the agreement to accept the Olive Tree offer suggests the moderates overcame those arguing that the opposition should cut no deals with the government.

After the April 21 general elections, Olive Tree leaders made clear they wanted a constructive dialogue with the opposition. Both Mr Romano Prodi, the Olive Tree leader, and Mr Massimo D'Alema, head of the Party of the Democratic Left (PDS), the dominant group in the alliance, said they did not want a situation in which the victors at the polls occupied all the seats of power.

The offer to Mr Berlusconi and his allies was intended to prevent a repetition of the situation produced by the March 1994 general election. Then Mr Berlusconi's rightwing alliance sought to place its members in all the major jobs in parliament and recruited supporters for posts in sensitive state companies and institutions such as the RAI broadcasting organisation.

The Olive Tree is willing to offer the Berlusconi camp the post of speaker of one of the two houses of parliament and had lead role in at least two of the main parliamentary commissions. The speakers of the senate and chamber of deputies are the two most important institutional roles after the presidency.

Observer, Page 15

Developing nations criticise Asian bank over loans

By Edward Luce in Manila

Leading Asian borrowers, including Malaysia and China, strongly criticised the Asian Development Bank yesterday for attaching stringent conditions to its loans.

Mr Anwar Ibrahim, deputy prime minister of Malaysia, said the ADB, holding its annual meeting in Manila this week, had displayed "bureaucratic rigidity" to recipient countries and had often failed to pursue proper development aims.

Neither country singled out specific policy conditions for criticism, but the speeches were a thinly veiled attack on the ADB's goal of ensuring that 40 per cent of total loan volume and 50 per cent of all projects be directed to social and environmental ends.

The policy, which the ADB adopted in 1994, was seen as a concession to the aims of leading western donors, notably the US.

Meanwhile, China and India have complained at being excluded from the ADB's soft-loan window, which extends subsidised loans to poorer Asian nations. The US rejected their demand for eligibility.

Mr Ibrahim told the ADB governors: "Imposing uniform measures on every country by ignoring their level of development and social costs involved in the reform process would be tantamount to a form of punishment on the borrowers.

"Donors should not use their contributions as a means to dictate terms and conditions that aggravate rather than alleviate the difficulties of poor countries."

The ADB, which until 1994 concentrated lending almost exclusively on set-piece infrastructure – mainly power and transport – projects aimed at boosting economic growth rates in Asia, has experienced difficulty in splitting the loans halfway between social and more commercial projects.

Financial rates of return on social and environmental projects are often too low for market-level interest rates on the loans to be viable.

The cost of borrowing on more traditional projects has subsequently been pushed up to a minimum 11 per cent to accommodate subsidies on the "softer" lending projects.

Countries such as China have complained this is tantamount to meddling in its domestic politics.

"The bank should give adequate attention to the importance of economic growth in its pursuit of social development objectives," Mr Jin Jieyan, deputy governor of the People's Bank of China, said yesterday.

"To impose conformity ... is not likely to work and may even produce an adverse impact on some developing members."

US seeks to bar China, India from fund, Page 6

News Corp group in TV card law suit

Continued from Page 1

success of BSkyB, and other parts of News group's TV interests, because they are designed to ensure only paying subscribers receive transmissions.

In taking action against Mr Bruce Hundertmark, a former News International director, and 10 other defendants, News group alleges he had an undisclosed interest in a company which held 20 per cent of the group's smart card subsidiary, News Datacom.

It is also claimed that others conspired to ensure the group became reliant on one supplier.

Mr Arthur Siskind, a director of News Corp and its general counsel, concedes that News group's management "did not have the technical expertise to challenge" a former employee named in the writ, alleged to have taken part in the conspiracy.

Tax avoidance questions have also arisen involving News group's smart card business.

Internal company documents seen by the FT show how News Datacom organised its accounts and structure from 1988 to 1992 to minimise the tax payable to authorities in Israel, where its research and development subsidiary operated, and in the UK.

An independent tax expert said it was an example of "extreme tax planning".

News group says it has broken no laws. Israeli tax authorities have "indicated that they do not intend to pursue any claim against News Datacom".

Documents seen by the FT also show how News Datacom executives had some of their remuneration paid as consultancy fees, but booked as directors' fees in the accounts.

Ireland to probe top executives' pay after expenses row

By a Dublin Correspondent

An inquiry has been announced into the pay of top executives of Ireland's state-owned companies following the revelation of alleged irregularities at Bord na Mona, which produces peat for the country's power stations.

The government move follows its admission that Mr Eddie O'Connor, former managing director of Bord na Mona, claimed I£141,000 ($218,850) in expenses over the three years to last March of which I£38,000 was paid without receipts.

Under government guidelines Mr O'Connor was entitled to a package worth around I£100,000 a year compared with the I£150,000 to I£200,000 he was paid in each of the last three years.

Mr O'Connor has said all elements of his package were approved by the previous chairman, Mr Brendan Halligan, a former secretary-general of the Irish Labour party. These included flights for his family and payments towards a car for his wife.

Mr O'Connor is credited with turning around the debt-ridden state company, which made profits of I£5m on turnover of I£130m in 1994, the most recent year for which figures are available.

Details of Mr O'Connor's remuneration package came to light following the appointment of a new chairman, Mr Pat Dineen, in September.

He stopped all unreceipted expense payments and put a stop to the bulk purchase of expensive French wine for "corporate purposes" and the use of a timeshare in Portugal by senior executives.

He also commissioned a report from Price Waterhouse which identified a number of other alleged irregularities including "extra to business" expenses and purchase of suits in lieu of medical insurance.

The directors of the company have called for a second report covering Mr O'Connor's nine years at Bord na Mona.

Mr Ruairi Quinn, minister for finance, has asked all ministers to confirm that the remuneration of the chief executives of the state companies under their control conforms with government guidelines.

Bodies covered by the investigation include utilities such as the Electricity Supply Board and the state gas company Bord Gais.

Cummins and Fiat venture

Continued from Page 1

Cummins customers mainly in Europe.

In addition, Cummins believes it will make a further 160,000 or so engines a year of the new type at its plants in the US for sales in North America and possibly Asia.

The deal seems certain to intensify the competition between Cummins and Perkins of the UK, its main rival in multi-purpose diesels. Perkins also collaborates with several manufacturing groups such as the Agco and Navistar tractor and truck makers.

THE LEX COLUMN

Chinese crackers

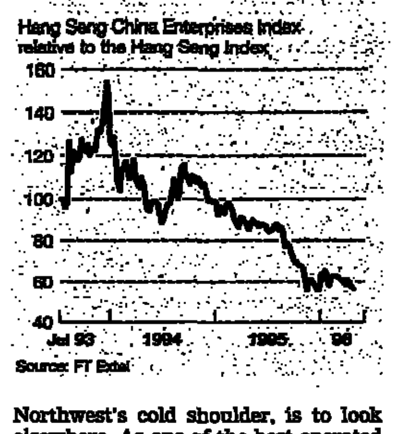
The cut in Chinese interest rates has more symbolic than practical significance, given the state of China's banking system. However, it suggests that after almost three years of austerity, when the government tried to subdue an economy that was totally out of control, the authorities are finally taking their foot off the brakes. Hence the surge in share prices of Hong Kong-listed Chinese companies yesterday.

Chinese interest rates are an extremely blunt instrument, since banks do not operate as commercial organisations and lending has traditionally been dictated by local party chiefs. But with retail price inflation at 8 per cent in the first quarter – down from a 1994 peak of 21 per cent – the government is signalling that it feels able to add fuel to the economy again. There is a risk that the ailing state sector will see this as encouragement to stick its snout back into the banking trough. The 26 per cent increase in state bank loans in the first quarter rings some alarm bells. However, Beijing has established greater control over the regions and should be able to prevent another feeding frenzy. Besides, a more active interest rate policy offers hope that the government will accelerate reforms of the banking system.

Given the flood of money into Hong Kong that accompanied mainland China's last economic boom, the colony's property developers represent probably the most sensible bet on an easing of the Chinese austerity programme. After all, 12 of the 18 Chinese companies listed in Hong Kong saw profits fall last year; and slack management was as much to blame as the economy.

FT-SE Eurotrack 200: 1728.2 (-4.9)

Red chips



Source: FT Extel

KLM/Northwest

KLM and Northwest Airlines are sending out mixed signals about the future of their partnership. Northwest claims it would like to expand the scope of the partnership, even though it admits KLM is considering calling it off. The reality is that the relationship looks untenable. The airlines' code-sharing deal has been one of the most commercially successful. But following Northwest's introduction of a poison pill to prevent KLM from raising its stake in Northwest to 25 per cent, the two companies are now locked in a legal battle, as KLM tries to restore its right to increase its holding and Northwest struggles to fend off what it sees as threat of a takeover.

History suggests that joint ventures are inherently unstable: ultimately, they either break up or develop into a closer union. In this case, the obvious temptation for KLM, in the face of Northwest's cold shoulder, is to look elsewhere. As one of the best operated European airlines, it would have no problems finding another partner: indeed, American Airlines, still flying solo, might welcome an approach. In addition, KLM has said it still wants to hook up with another European airline. All this means the dream-team of British Airways, KLM and American is still worth fantasising about.

UK power

If Britain's generators have a clear "plan B" strategy, they are keeping it well-hidden. The problem is simple: the government's decision to block their bids for regional electricity companies has left them with remarkably strong balance sheets and nowhere to put the money. The right answer now is to hand big sums back to shareholders, reshaping the companies' inefficient capital structures.

The worry for shareholders is that it is far from clear whether this is the plan – or indeed whether there is one. For managements, there must be a strong temptation to hold back, keeping investors sweet with a promise to increase dividends over the medium term. That way, cash can be gradually dribbled out to help massage the gloomy prospects for earnings. And a big war-chest can be kept handy, so managements need not be stuck with the boring business of managing a UK generator.

If sound acquisitions can be found, this is all well and good. But with high-paying US power companies scouring the globe, the odds are against it; the hot competition in recent Australian power sales is certainly a bad sign. Moreover keeping balance-sheets strong on the off-chance of some natty acquisition is not only inefficient; it is also dangerous. It offers a particularly juicy target for the Labour party's planned windfall tax. And it leaves the companies vulnerable to takeover. For National Power in particular, handing out a big chunk of cash now would certainly raise the stakes in its poker game with Southern Company.

The generators are busy making up their minds. If shareholders want their interests to be heeded in this process, they need to get moving, and make their voices clearly heard.

Railtrack

The train is leaving the station, and it is time for investors to decide whether to hop on. A glance at Railtrack's financial strength provides powerful reasons to do so: formidable scope for cost-cutting, fat provisions to absorb any nasty surprises and a distinctly healthy balance sheet. Yet most investors are taking a deeply conservative view of the company's future cashflow; with a more realistic view setting in over time the prospects for the shares should be rosy. But even if the cautious view turned out to be correct, it would not justify a yield as high as the 6.8-7.6 per cent range for retail investors implied by the indicative pricing. Even the water sector, which the market tends to undervalue and which is much further down the cost-cutting curve, trades at an average of 6 per cent.

Ah yes, say the doubters, but what about the Labour party? They are right to take the threat seriously. Forget nationalisation; it is Labour's plan to bring the rail regulator under government control which is the real worry. That would give it the power to exploit Railtrack's financial strength to political advantage: it could, for instance, force the company into a chronically uneconomic investment such as Crossrail. Railtrack could avert this threat by tautening its balance sheet, handing cash back to shareholders before the election. But investors cannot count on it.

In short, investors have to balance the company's financial potential against the likelihood that a Labour government will constrain investors' ability to get their hands on it. This is not vastly different from the judgment investors have to make in the water sector; if anything, the big difference in rail is not that the political risks are higher but that the financial potential looks greater. Yet the shares are cheaper. They are a buy.

Additional Lex comment on textiles, Page 23

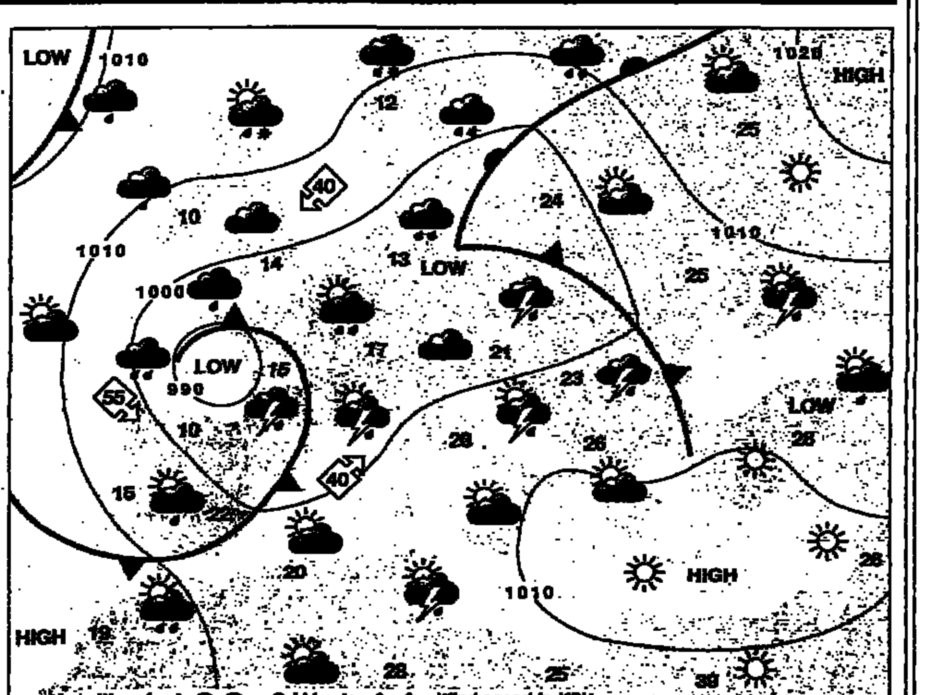
FT WEATHER GUIDE

Europe today

The British Isles and most of Spain will have fresh to strong breezes. Low pressure in the Bay of Biscay will bring cloud and rain to western France, the western Iberian peninsula and south-east England. The Benelux and south-eastern France will have showers and some thunder. Western Europe will remain mainly cool. Most of Germany will be cloudy and wet, and the Czech Republic and eastern Poland will have patchy rain. Romania and the Balkan states will have thundery showers, and south-eastern Europe will be sunny, with temperatures of more than 20C in Greece and Turkey.

Five-day forecast

The Benelux and France will have widespread showers over the next few days, becoming dry and sunny by the weekend. Cloud and rain over Italy and central Europe will move slowly east, and western Russia will remain wet. The UK will become warm and dry, but with some showers in the north.



Situation at 12 GMT. Temperatures maximum for day. Forecasts by Meteo Consult of the Netherlands

TODAY'S TEMPERATURES

		Maximum Celsius
Abu Dhabi	sun	35
Accra	thund	32
Algiers	shower	21
Amsterdam	shower	15
Athens	fair	22
Atlanta	sun	27
B. Aires	sun	25
B.ham	cloudy	14
Bangkok	shower	35
Barcelona	fair	18
Beijing	sun	26
Belfast	rain	9
Belgrade	cloudy	23
Berlin	rain	19
Bermuda	fair	23
Bogota	cloudy	20
Bombay	sun	33
Brussels	shower	18
Budapest	cloudy	22
C.hagen	rain	12
Cairo	sun	35
Cape Town	drzzl	19
Caracas	fair	30
Cardiff	shower	15
Casablanca	rain	21
Chicago	fair	16
Cologne	shower	18
Dakar	sun	26
Dallas	fair	31
Delhi	sun	38
Dubai	sun	33
Dublin	rain	10
Dubrovnik	shower	19
Edinburgh	shower	8
Faro	fair	19
Frankfurt	shower	18
Geneva	rain	16
Gibraltar	shower	20
Glasgow	shower	10
Hamburg	rain	13
Helsinki	rain	14
Hong Kong	rain	28
Honolulu	fair	30
Istanbul	fair	22
Jakarta	shower	32
Jersey	shower	13
Karachi	sun	34
Kuwait	sun	40
L. Angeles	sun	28
Las Palmas	fair	23
Lima	sun	25
Lisbon	shower	15
London	shower	16
Lux.bourg	shower	16
Lyon	rain	16
Madeira	cloudy	21
Madrid	fair	14
Majorca	fair	17
Malta	fair	21
Manchester	cloudy	13
Manila	shower	34
Melbourne	fair	20
Mexico City	fair	23
Miami	fair	30
Milan	shower	18
Montreal	shower	14
Moscow	fair	24
Munich	rain	20
Nairobi	fair	26
Naples	fair	20
Nassau	fair	30
New York	fair	20
Nice	rain	19
Nicosia	fair	27
Oslo	shower	13
Paris	shower	17
Perth	fair	27
Prague	rain	19
Rangoon	fair	32
Reykjavik	drzzl	8
Rio	rain	26
Rome	shower	19
S. Frsco	sun	24
Seoul	fair	20
Singapore	thund	31
Stockholm	cloudy	14
Strasbourg	shower	17
Sydney	rain	19
Tangier	shower	20
Tel Aviv	fair	31
Tokyo	rain	23
Toronto	fair	13
Vancouver	shower	12
Venice	shower	17
Vienna	cloudy	21
Warsaw	cloudy	18
Washington	cloudy	22
Wellington	fair	14
Winnipeg	fair	12
Zurich	cloudy	15